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Environment, Nature Conservation
and Nuclear Safety

**Umwelt
Bundes
Amt** 
Für Mensch und Umwelt

UNECE Convention on the
Transboundary Effects of
Industrial Accidents

**Assistance
Programme**



UNECE Convention on the Transboundary Effects of Industrial Accidents

Project under the Assistance Programme

Final report



WORKSHOP REPORT

Hazard and crisis management in the Danube Delta

1st Technical Workshop in Hazard Management

12 – 13 July 2011
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Vasile Lupu Str., Hotel "Europa"

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SUMMARY

The 'Technical Workshop in Hazard Management' was held in Chisinau, Republic of Moldova on 12-13 July 2011. The workshop was organized within the UNECE-led project on hazard and crisis management in the Danube Delta and was the first in a series of technical workshops addressing enhanced cooperation in hazard management for the Danube Delta in the Republic of Moldova, Romania and Ukraine.

During the event, participants present the baseline for technical cooperation and capacity building for the Republic of Moldova, Romania and Ukraine. The workshop set out to create a common understanding of the legal basis for identification and safe management of hazardous installations as well as information and public participation with regard to industrial safety in each country. In preparation for the workshop, each country was requested to conduct a self-assessment of their national hazard management regimes according to indicators and criteria developed under the UNECE Convention on the Transboundary Effects of Industrial Accidents (TEIA). Based on the self-assessment and the presentations, a gap analysis took place in groups made up by representatives of each country. As the self-assessments were mostly still under preparation at time of the workshop, the gap analysis focused on the presentations given during the workshop.

The workshop showed that each country has an elaborate and far-reaching set of legal provisions that address key areas. These provisions however still vary in structure and applicability between countries which might limit comparability. Challenges the countries share are, above all, related to information exchange between the institutions administrating different areas under regulation and the competent authority. While information exchange takes place, in many cases the pathways are often based on informal networks and personal experience. In general the success of this approach has been attributed to strong commitment by personnel and institutions but also has proven to be vulnerable to changes. Existing structures in information exchange should therefore be reinforced through more formal mechanisms that ensure regular and coherent information exchange within and across the countries.

Participants also presented the national provisions for identification and categorization of hazardous activities in each country. It was confirmed that identification and categorization play an important role in each country and that there are far-reaching legal provisions in this area. However, it also showed that approaches differ in formulation and implementation, which makes their comparison difficult. In order to improve this situation, a common set of parameters was considered to be a useful tool in order to achieve basic comparability for the assessment of hazardous activities. A common set of parameters was also considered beneficial with regard to information exchange on various levels. Similarly, there are extensive provisions for public information and participation with regard to industrial safety in each country.

A number of international experts supported the participants in their work and shared their experience regarding hazard management. Of particular relevance in this context are the Water Framework Directive and the Danube Convention and their approaches to identification and safe operations of hazardous activities as well as the requirements on identification and safe operations of hazardous activities-in accordance with the Seveso II Directive. Another important legal mechanism is the

UNECE TEIA Convention; and recommendations according to the Convention as relevant for the workshop were discussed. On a more practical level, experts from Germany introduced the German checklist system for hazard management. The checklist was very positively received among the workshop participants and it was concluded that a similar approach adapted to the needs of the project could be highly beneficial in achieving the project goals. The German experts further introduced the German licensing and inspection system concerning facilities for handling substances hazardous to water.

A BASELINE FOR HAZARD MANAGEMENT

A.1 Legal bases and procedures for identification of hazardous activities

A.1.1 Republic of Moldova

Presented by Mustea Mihai/V.Dumneanu

A.1.2 Romania

Presented by Cristina Pintilie, General Inspectorate for Emergency Situations, Romania

A.1.2.1 Laws and Normative Legal Acts for hazard Identification in Romania

- Law no. 92/2003 for acceding to UNECE Convention on the transboundary effects of industrial accidents adopted on 17 Mars 1992 in Helsinki;
- Governmental Decision no. 804/2007 on the control of major accident hazards involving dangerous substances;
- Ministerial Order no. 811/2010 concerning the approval on publishing the acceptance of the amended Annex II of the UNECE Convention on the transboundary effects of industrial accidents adopted on 17 Mars 1992 in Helsinki;
- Ministerial Order no. 1084/2003 concerning the notification procedure for activities with major - accidents hazards involving dangerous substances;
- Ministerial Order no. 142/2004 concerning the safety report assessment procedure for activities with major - accidents hazards involving dangerous substances;
- Ministerial Common Order no. 520/1318/ 2006 for approval of the major accident assessment procedure.
- Ministerial Order no. 251/2005 regarding the organization and functioning conditions of the risk secretariats for the control of major - accident hazards involving dangerous substances;
- Ministerial Order no. 647/2005 regarding methodological norms for emergency plans elaboration;
- Ministerial Order no. 1299 / 2005 regarding approval of the inspection procedure for activities with major - accidents hazards involving dangerous substances;
- Governmental Decision. no. 21/2004 – referring to the National Emergency Management System
- Governmental Decision 1492 / 28.09.2004 – organization principles, functioning and tasks of the professional emergency services
- Governmental Decision no. 1490/ 09.09.2004 – Regulations of organization and functioning of the General Inspectorate for Emergency Situations
- Civil Protection Law no. 481 / 08.11.2004
- Governmental Decision no. 2288 /2004 on the support tasks of ministries, other central institutions and non-governmental organizations for the prevention and management of emergencies

- Governmental Decision no. 1491 / 28.09.2004 on regulations on organization, functioning, tasks and endowment of Operative Committees and Centers for Emergency Situations

A.1.2.2 Competent authorities

National level

Ministry of environment and forests - risk secretariat
National environmental protection agency - risk secretariat (nepa);
National environmental guard (neg).
Ministry of administration and interior,
General inspectorate for emergency situations (gies)

Regional level

Regional environmental protection agencies (repas);
Regional environmental guard commissariats (regs);

County level

County environmental protection agencies (cepas);
County environmental guard commissariats (cegs);
County inspectorates for emergency situations (cies).

A.1.2.3 Responsibilities of the Ministry of Administration and Interior

The Ministry of Administration and Interior and its General Inspectorate for Emergency Situations are responsible for implementing provisions related to the TEIA convention. This includes identification of the hazardous activities capable of producing transboundary effects and the implementation of an adequate legal framework related to the prevention of industrial accidents.

The inspectorate drafts the National Report on the implementation of the Convention and submitting it to the Convention Secretariat and maintains a national focal point for notifying industrial accidents and reciprocal assistance with the neighboring countries. Notifications on industrial accidents are transmitted through the industrial accident notification system. The Inspectorate maintains an emergency management system for mitigating and eliminating the consequences of an industrial accident, notifies the focal points and exchanges information with corresponding authorities from neighboring countries. External emergency plans must be coordinated with competent authorities of neighbouring countries. Cooperation agreements are established for the management of emergency situations determined by industrial accidents posing transboundary effects with the corresponding authorities from neighboring countries.

A.1.2.4 Legal bases and procedures for identification of hazardous activities

For the purpose of identifying hazardous activities capable of causing transboundary effects the two location criteria of the Decision 2004/2 amending the guidelines to facilitate the identification of

hazardous activities for the purposes of the Convention are applied for the upper tier establishment under Seveso II Directive;

A.1.2.5 Mechanism for identification of hazardous activities

Mechanisms for identification of hazardous activities were adopted through GD 804/2007 and MO 1084/2003 and impose obligations for operators and competent authorities at local level;

HA operators are required to send the competent authority a notification, cooperation with competent authorities is implemented at various levels. At the local level, which is the hardest part of implementation, there are a series of activities organized in common, from which the principals are:

Analyzing the Notification – The notification is checked by the competent authorities and additional information is requested if is necessary;

Updating of the inventory with Seveso II operators – The procedure for including sites in the inventory, which involves all three authorities. The regular reports to national authorities on Seveso II matters, and of general interest, from local level to national level, are signed and sent by all three authority levels.

Participating in environmental licensing procedures - before issuing the environmental permit, all authorities, including competent authorities (CAs), have the opportunity to assess and comment the documentation in a Committee for Technical Analysis;

Regular inspections - Inspections are an essential instrument in the identification of hazardous activities. The system of inspection is organized at local level and regular inspection reports are being produced.

The Local Environmental Protection Agency (LEPA) is the interface for communication with the operators. The operators send notifications to LEPA who shares the documents with other CA's. Any response is then communicated via LEPA to the operators. Notifications are assessed by all authorities, each of them coming with his own expertise. Each authority verifies the notification if all the data is adequate and is stated for the identifications of hazardous activities. The decision if an establishment comes under the provisions of GD 804/2007, is a common decision of all the competent authorities.

A.1.3 Ukraine

Presented by Kateryna Pogosova. Ukrainian State Inspection

A.1.3.1 Laws and Normative Legal Acts for hazard Identification in Ukraine

- Ukrainian law in force from January 18, 2001, No. 2245 on “The Establishments of High Degree Hazards”.
- Resolution of the Cabinet of Ministers of Ukraine from July, 11, 2001, No. 956 on “Identification and Declaration of Hazardous Activities Safety”, from May, 28, 2008, No. 493 on “Approval of Criteria for Sharing the Business Entities by the Levels of Risk for the Safety of People’s Lives and Health, Environment and the Periodicity of Implementing Activities of State Control while Implementing the Economic Activities”.

- Resolution of the State registers of potentially hazardous activities, approved by the Cabinet of Ministers of Ukraine from August, 29, 2002 No. 1288.
- Methodology of most hazardous activities identification approved by the order of MNF from February, 23, 2006 No. 98.
- Regulation on certification of potentially hazardous activities, approved by the MOE of Ukraine from December, 18, 2000, No. 338

The identification of potentially hazardous activities and those of great danger suggests the analysis of the structure of the objects of economic activity and the way they function in order to establish the source of hazard, which in certain negative circumstances (an accident, natural disaster, etc.) may cause an emergency and also determine the level of potential emergency.

One should take into account the internal and external factors of the hazard in the process of identification. The Internal factors of a hazard concern the dangerous buildings, constructions, equipment, technological processes of the objects of economic activity and substances which are made, processed, stored or transported on their territory. The external factors of a hazard are not directly connected with the functioning of the objects of economic activity but can initiate an emergency on their territory and negatively influence their development (natural disasters and accidents at plants placed in the neighborhood).

All the objects of economic activities located on the territory of Ukraine owned by the State, collectively or privately by entities or persons, other activities defined by the commission dealing with FEB and emergency, or by the corresponding central and local executive authorities that are in charge of a safe functioning of VET, should undergo the process of identification.

Territorial and local official authorities of control in the field of civil protection determine the terms of hazard identification and take measures to provide the process of identification.

A.1.3.2 The process of identification

- a. The list of types of activities that represent a high degree of ecological hazard approved by the resolution of the Cabinet of Ministers of Ukraine from July, 27, 1995, No. 554;
- b. The list of particularly hazardous activities, that cannot be stopped without taking special steps to prevent harm to life and health of people, damage to property and constructions, environment, approved by the resolution of the Cabinet of Ministers of Ukraine from May, 6, 2000, No. 765;
- c. The list of activities and other areas that must be maintained by the State emergency services, approved by the resolution of the Cabinet of Ministers of Ukraine from August, 4, 2000, No. 1214.

The procedure of Identification is carried out taking the following steps:

- a. The choice of emergency codes, that can happen in the area of the hazardous activity according to the classification of emergency;
- b. The analysis of emergency criteria indicators chosen at the previous level and the identification of their limits using the emergency classifying criteria approved by the order of MOE of Ukraine from April, 22, 2003, No. 119;
- c. The determination of sources of hazards on the basis of analysis that in certain conditions may cause an emergency;
- d. The determination of types of hazards for each determined source of hazard;

- e. Hazardous solutions list identification used in hazardous activities, their number and degree of danger;
- f. The assessment of the emergency zone on the basis of the obtained data;
- g. The assessment of different consequences of emergency for every source of hazard (the number of dead people, victims, those people that had their living conditions worsened and those that suffered of material damages) using the methodology of assessing losses as a result of emergency caused by nature or manmade, approved by the resolution of the Cabinet of Ministers of Ukraine from February, 15, 2002, No. 175;
- h. The establishment of the most possible levels of emergency for every source of hazards according to the classification of natural and manmade emergency on levels;
- i. The determination of State registers in which the object of economic activity is registered using the list of State registers of Ukraine to account for hazardous activities;
- j. The determination of correspondence between the activity and the legal acts in the area for determining hazardous activities.

A.1.3.3 The Identification of High Degree Hazard Activities

The high degree hazardous activity is a plant/factory that uses, produces, processes and stores or transports one or some hazardous solutions or categories of solutions equal in number or exceeding the normative determined by the limited amount, also some other things that are according to the law a real threat for causing emergencies of natural or manmade character.

The potential hazardous activity is considered a hazardous activity of the corresponding class if the amount of the dangerous total mass or of some dangerous solutions used or produced, processed, stored or transported on the territory of the plant exceeds the limited determined norm.

A potentially hazardous activity is considered a mechanism or a unity of mechanisms linked by flows of a technological cycle of mechanisms united by an administrative or/and a territorial indicator.

A potentially hazardous activity with an administrative indicator is a structural subdivision (production, department, division, section, etc.) of a business entity.

According to the types of accidents which can happen based on the properties of hazardous solutions and under the influence of the factors that cause these accidents the categories of hazardous solutions divide into:

- Group 1 (explosion) – inflammable gases, inflammable liquids superheated under pressure, initiating, blasting and pyrotechnic explosives, substance oxidants, solutions which get into a stormy reaction with water eliminating inflammable and/or explosive or toxic gases;
- Group 2 (fire) – inflammable gases, inflammable liquids superheated under pressure, substance oxidants and also solutions which get into a stormy reaction with water eliminating inflammable and/or explosive or toxic gases;
- Group 3 (hazardous solutions for people and environment) – super-toxic solutions, toxic solutions, solutions causing danger for the environment (super-toxic to aquatic organisms) and /or can have a long-lasting negative influence on the aquatic environment and also solutions that get into a stormy reaction with water eliminating inflammable and/or explosive and toxic gases.

The standard threshold mass of hazardous solutions of one group is determined using the following formulae:

$$Q(\text{pgr}) = Sg(i): S(g(i): Q(i)) \quad (1)$$

S – stands for the total quantity;

g(i) – total mass of the hazardous solution found on the territory of activity;

Q(i) – the standard threshold mass of this hazardous solution.

The total mass of hazardous solutions from one group equals or exceeds with its threshold mass if the following condition is taken into account:

$$S(g(i): Q(i)) > 1$$

In case if the total weight of hazardous solutions in the potentially hazardous activity doesn't exceed the smallest value of the standard threshold mass but the distance from the activity to the places largely populated by people, close to highways, industrial, environmentally protected and vitally important entities is within less than 500 meters for the hazardous solutions included in group 1 and 2 and 1000 meters for those from group 3, the limited weight for hazardous solutions is calculated using the following formulae:

$$Q(i.k) = Q(i) \times (R(x): R(n)) \text{ в степ. 2}, \quad (2)$$

Q(ik) – stands for the standard threshold mass of hazardous solutions for the potentially hazardous activities located away from the largely populated places, highways, industrial, environmentally protected and vitally important entities within less than 500 meters for the hazardous solutions included in group 1 and 2 and 1000 meters for those from group 3;

Q(i) – stands for a standard threshold mass of separate hazardous solutions or categories of hazardous solutions or hazardous solutions from one category or group;

R(x) – stands for the distance from the potentially hazardous activity to the places largely populated by people, highways, industrial, environmentally protected and vitally important entities;

R(n) – stands for limiting distance, beginning with which the recalculation of the standard threshold mass is being done (for the solutions from group 1 and 2 R(n) equals 500 meters, for those from group 3 – 1000 meters.

The process of identification is considered complete when:

The hazardous activity managers and the engineers fill in the form about the results of identification, determined by the MOE of Ukraine order from February 23, 2006, No.98;

There is an agreement notice about the results of identification carried out by the local authorities of State control in the field of civil protection.

A notice about the results of identification, in case of a potential hazard is found, is presented to the local authority of civil protection control to summarize the results of the identification and to introduce the activity into the list of potentially hazardous activities of the corresponding administrative territory.

A.1.4 Belarus

Presented by Dedul Leonid, First Deputy Chief of the Ministry of Emergency Situations of the Republic of Belarus

A.1.4.1 Laws and Normative Legal Acts for hazard Identification in Belarus

Laws of the Republic of Belarus:

«On industrial safety of hazardous production facilities "(10 January 2000) - determines the criteria for classifying objects in a hazardous production facilities; sets limits on the quantities of hazardous substances, whose presence is the basis for the development of a mandatory declaration of industrial safety

"On Trunk Pipeline Transport" (January 9, 2002) - determines the composition of pipeline facilities, establishes the procedure for the establishment, operation, conservation and liquidation of the main pipelines

Decrees of the President of the Republic of Belarus:

"On licensing of separate kinds of activity" defines the procedure for obtaining permits (licenses) for the operation of hazardous production facilities

"On improvement of the control (surveillance) activities" determines the criteria for inclusion of subjects at risk

Emergency orders:

"On approval of instruction on the definition of objects of high technological and environmental risk"

"On Approval of the examination of industrial safety of dangerous industrial objects"

"On approval of rules of technical devices at hazardous production facilities and attractions"

"On Approval of the Instruction on Registration of Objects in a public register of dangerous industrial objects and the conduct of the state register of dangerous industrial objects"

In Belarus, the conditions for the formation of the regulatory framework and the introduction of modern processes of state regulation of industrial safety comprise the development and maintenance of the state register of hazardous industries as well as licensing activities in the field of industrial safety. The development of mandatory certification and licensing of the manufacture of technical devices and their application at the hazardous production facilities is integrated in the framework. Managers and employees are trained and certified on industrial safety.

The industrial safety examination is developed based on independent assessment of compliance with design requirements and technical solutions, rules and regulations of industrial safety and includes declarations of industrial safety of hazardous production facilities.

Further there is a system of compulsory liability insurance organizations operating hazardous production facilities, for injury to life, health and property of others and the environment in the event of an accident at hazardous production facilities.

State supervision of compliance is improved with the requirements of industrial safety and development of a system of public control, transparency and information in the field of industrial safety.

A.2 Legal bases and existing mechanisms for safe management of hazardous activities (preventive measures)

A.2.1 Republic of Moldova

A.2.1.1 Laws and Normative Legal Acts for hazard prevention in the Republic of Moldova

- Law on the civil protection, no.271-XIII of 09.11.1994
- Law on the regime harmful products and substances, no.1236-XIII of 03.07.1997
- Law on production and consumption wastes, no.1347-XIII of 09.10.1997
- Law on industrial safety of dangerous industrial objects, no.803-XIV of 11.02. 2000
- Law on licensing some types of activities, no. 451-XIV of 30.07.2001

Government decisions

- The classification of emergency situations and order the accumulation and presentation of information in population and territory protection in case of exceptional circumstance, Government Decision no. 1076 of 16.11.2010
- The Regulation of the National Network of Observation and Laboratory Control of contamination (pollution) environment with radioactive substances, toxic, highly toxic and biological agents, Government Decision no.961 of 21.08.2006
- The transports of dangerous goods in the Republic of Moldova, Government Decision no. 672 of 28.05.2002
- The Regulation of transportation of dangerous cargoes in the Republic of Moldova and liquidation the consequences of any accidents, Government Decision no. 45 of 24.01.1994

Vice Chairman of the State Emergency Situations Commission Directives

- The organization of protection of workers, employees and population from the action of radioactive substances and highly toxic substances, no. 2/500 of 15.11.2000
- How to improve the protection of workers, officials and the population against highly toxic and radioactive substances, no. 120d of 10.12.2004

Technical regulations

- NRS 35-01-18:2000+A1 „Rules for making industrial safety expertise”
- RG 35-01-04:98 „Rules for security people who work with substances, products and hazardous wastes”
- RG 35-01-20:2000 „The elaboration of normative documents in the field of industrial safety”
- RG 35-01-46:2003 „Rules on the use of technical installations in dangerous industrial objects”
- NRS 35-05-43:2002 „General flameproof safety rules for production with danger of deflagration of chemical and petrochemical industry and oil processing”

A.2.1.2 Policy and regulatory developments in process

- Law project about the safe exploitation of hydrotechnical structures;
- Law project on chemical substances;
- Government Decision project about Regulation concerning the export and import of dangerous chemicals products;
- Government Decision project about Regulation of classification labeling and packaging of substances and mixtures.

In case of chemical contamination, the laboratory network of observation and is responsible to establish the fact of poison-toxic substances contamination, to determine the types of poison-toxic substances in the air, water, and natural reservoirs, soil and to determine the quantity of poison-toxic substances in the food-stuff, potable water, edible raw material and forage etc. Further, it determines the contamination level with toxic substances of the environment in the heavy traffic transportation areas.

In case of biological contamination the establishes the fact of biological contamination, determines the types of pathogen biological agents in the environment, people and domestic animals organisms and examines food-stuff, potable water, edible raw material and forage.

A.2.1.3 Civil protection units for action in case of radioactive, chemical and biological pollution

- Chemical and radiological prospecting service in structure emergency rescue detachment – 1 (Chisinau, 9 pers.);
- Chemical and radiological prospecting service in structure emergency rescue detachment – 2 (Balti, 5 pers.);
- Chemical and radiological laboratory (Chisinau, 7 pers.);
- Chemical, radiological, medical and biological protection section in structure civil protection and emergency situations service (Chisinau, 6 pers.);

A.2.2 Romania

Presented by Maria Magdalena Duta, National Environmental Protection agency, Romania

The major accident prevention policy established by the operator is designed to guarantee a high level of protection for man and the environment by appropriate means, structures and management systems. The safety management system include the part of the general management system which includes the organizational structure, responsibilities, practices, procedures, processes and resources for determining and implementing the major accident prevention policy. It is recognized that the safe functioning of an establishment depends on its overall management. Within this overall management system, the safe operation of an establishment requires the implementation of a system of structures, responsibilities, and procedures, with the appropriate resources and technological solutions available. The Safety Management System may also involve integration with a management system, which addresses other matters, such as the health of workers, the environment, quality, etc. It is possible to develop a Safety Management System by extending the scope of an existing management system, but it will be incumbent upon the operator to ensure, and demonstrate where necessary, that the management system has been fully developed to cover major-accident controls and meets the requirements

The following issues shall be addressed by the safety management system:

- a. Organization and personnel — the roles and responsibilities of personnel involved in the management of major hazards at all levels in the organization. The identification of training

- needs of such personnel and the provision of the training so identified. The involvement of employees and, where appropriate, subcontractors;
- b. Identification and evaluation of major hazards — adoption and implementation of procedures for systematically identifying major hazards arising from normal and abnormal operation and the assessment of their likelihood and severity;
 - c. Operational control — adoption and implementation of procedures and instructions for safe operation, including maintenance, of plant, processes, equipment and temporary stoppages;
 - d. Management of change — adoption and implementation of procedures for planning modifications to, or the design of new installations, processes or storage facilities;
 - e. Planning for emergencies — adoption and implementation of procedures to identify foreseeable emergencies by systematic analysis and to prepare, test and review emergency plans to respond to such emergencies;
 - f. Monitoring performance — adoption and implementation of procedures for the ongoing assessment of compliance with the objectives set by the operator's major-accident prevention policy and safety management system, and the mechanisms for investigation and taking corrective action in case of non-compliance. The procedures should cover the operator's system for reporting major accidents or near misses, particularly those involving failure of protective measures, and their investigation and follow-up on the basis of lessons learnt;
 - g. Audit and review — adoption and implementation of procedures for periodic systematic assessment of the major-accident prevention policy and the effectiveness and suitability of the safety management system; the documented review of performance of the policy and safety management system and its updating by senior management.

A.2.2.1 Laws and Normative Legal Acts for hazard prevention in Romania

- Governmental Decision no. 804/2007 on the control of major - accident hazards involving dangerous substances—transpose in national legislation Directive 96/82/EC-Seveso II and Directive 2003/105/EC of the European Parliament and of the Council amending Council Directive 96/82/EC (replace Governmental Decision no. 95/2003)
- §MEWM Order no. 142/2004 approving the safety report
 - assessment procedure for activities with major - accident
 - hazards involving dangerous substances
- MEWM Order no. 251/2005 concerning the organization and functioning of risk secretariats regarding the control of the activities presenting major accident hazards involving dangerous substances
- MEWM Order no. 1299/2005 approving the Inspection Procedure for establishments presenting major - accidents hazards involving dangerous substances
- MEWM Order no. 520/2006 approving the major accidents investigation procedure involving dangerous substances

GD 804/2007 establishes that **the operator** is obliged to take all measures necessary to prevent major accidents and to limit their consequences for man and the environment, to prove to the competent authority, at any time, in particular for the purposes of the inspections and controls, that he has taken all the measures necessary, to send the competent authority a notification, to draw up a document setting out his major-accident prevention policy and to ensure that it is properly implemented. The major accident prevention policy established by the operator is designed to guarantee a high level of protection for man and the environment by appropriate means, structures and management systems.

A safety report must be prepared to demonstrate that a major-accident prevention policy and a safety management system for implementing it have been put into effect, that hazards have been identified and that the necessary measures have been taken to prevent such accidents and to limit their consequences for man and the environment. The safety report should demonstrate that adequate safety and reliability have been incorporated into the design, construction, operation and maintenance of any installation, storage facility, equipment and infrastructure connected with its operation which are linked to major-accident hazards inside the establishment. Internal emergency plans should be drawn up and supplying information to enable the external plan in order to take the necessary measures in the event of a major accident. It must further providing sufficient information to the competent authorities to enable decisions to be made in terms of the siting of new activities or developments around existing ones

GD 804/2007 establish that the competent authorities should use the information received from the operators, identifies establishments or groups of establishments where the likelihood and the possibility or consequences of a major accident may be increased because of the location and the proximity of such establishments, and their inventories of dangerous substances. It is required to organize a system of inspections, or other measures of control appropriate to the type of establishment concerned, sufficient for a planned and systematic examination of the systems being employed at the establishment, whether of a technical, organizational or managerial nature.

Ministerial Order 142/2004 approving the Procedure for assessment of safety reports:

The date at which the safety report was provided

- The existence of the information required under the Seveso II Directive
- The management system and the organization of the establishment
- The presentation of the environment the establishment is located
- Description of the installation
- The risks were identified and analyzed and the prevention methods
- Protection and intervention measures for the mitigation of the consequences of an accident
- Necessary information to enable the competent authorities to take decisions regarding the location or extend of other activities in the area of the existing Seveso establishment
- The existence of necessary information to elaborate the external emergency plan
- Existence of data and scientific elements
- Conformation of data and information presented in the safety report

Inspection Procedure according to MO 1299/2005 on the establishment of an inspection system

Main scope of inspection – a planned and systematic inspection of technical equipments, organization and administration of the site in order to establish if the operator adopted the necessary measures with a view to guarantee a high level of protection for man, property and environment

The operator has to prove that all the measures necessary required to prevent major accidents and to limit the consequences of major accidents inside and outside the establishment maintains and operates the establishment in a safe manner corresponding to the level of safety techniques were taken, that the data and information provided in the safety report or in other documents reflects the security situation of the establishment, that he has established programs and informed the staff regarding the protection measures and the actions to be taken in case of accident, and that he informed the public according to legal provisions.

The operator has to fulfill the following principles:

- to prevent and eliminate at source incidents and major accidents;
- take into consideration the human factor;
- adapting to technical progress;
- replacing of dangerous substances by non-dangerous or less dangerous substances;
- giving collective protective measures priority over individual protective measures;
- giving appropriate instructions to the employees of the establishment;

The inspection system has to fulfill the following requirements:

- there will be elaborated an inspection program including all the establishments presenting hazards of major accidents;
- each upper tier establishment will be checked on site;
- at the end of each inspection the competent authorities have to draw up a report;
- when it is necessary the competent authorities together with the operator will monitor the implementation of the measures in a reasonable period of time;

A.2.2.2 Competent Authorities

- Ministry of environment and sustainable development (MESD)-risk secretariat
- Ministry of interior and administrative reform (MIAR)
- National Environmental Protection Agency (NEPA)-risk secretariat
- National Environmental Guard (NEG)
- General Inspectorate for Emergency Situations (GIES)
- Regional Environmental Protection Agencies (REPAs)-risk secretariats
- Local Environmental Protection Agencies (LEPAs)-risk secretariats
- County Commissariats of National Environmental Guard
- County Inspectorates for Emergency Situations

Co-operation between the authorities exists between NEPA and NEG, NEPA and GIES, as well as GIES and NEG. As a result, these authorities conduct common inspections and trainings and activities, and joint working Groups with representatives of all involved authorities.

Existing tools/reference system:

- Guidance on the preparation of a safety report to meet the requirements of Directive 96/82/EC amended by Directive 2003/105/EC- Institute for the protection and security of the Citizen MAHB
- Guidelines on a Major Accident Prevention Policy and Safety Management System, as required by Council Directive 96/82/EC (SEVESO II) -Neil Mitchison & Sam Porter (Eds.) Institute for System Informatics and Safety
- Guidance on inspections as required by article 18 of Council Directive 96/82/EC – Seveso II – Institute for System Informatics and Safety

A.2.2.3 Inspections

The inspections are partial or integral and can be performed independently by each competent authority or together. The leading authority during the inspection is established depending on the theme of inspection

1. Planned inspection

1.1. General (routine), do not suppose a detailed preparation

1.2. Detailed (the procedure has three phases: preparation, execution, follow-up/monitoring).

2. Unplanned inspection

2.1. Special (justified by unpredicted events) in case of: accident – afterwards, claims, request of changes of permits, ceasing of the activity.

2.2. Unannounced:

2.2.1. Inspection on effective implementation of safety measures

2.2.2. Inspection initiated by the presence of a specific risk – it is systematically examined, if:

The operator analyzed adequately the risk;

Were identified adequate control, preventive and mitigation measures;

The measures were implemented;

The integrity of these measures is controlled by the Safety Management System (SMS).

The inspectors are authorized to:

- to claim all necessary information;
- inspect the installations;
- execute all necessary examinations, interrogations;-
- give advice, warning based on legal provisions;
- initiate legal action;
- initiate prohibition of use, according to legal provisions;

Planning the inspection activity has to assure systematic check of technological, organizational and management systems. On the local level, it has to take into account the

Provisions of GD 804/2007, local priorities as a result of systematic assessment of risks, data and information obtained in previous inspections, and the location where the inspection is strictly necessary.

Priorities are assessment of hazards/risks, dimension and complexity of the site, assessment of safety report, experience as result of accidents, incidents, malfunctioning in similar installations and experience from previous inspections, safety reports assessment and permitting procedures. This further includes received claims, best available technology, quantity of dangerous substances, major changes of staff, parameters like high pressure and temperature, type and complexity of the process, capacity, and surroundings including danger of natural disasters if the establishment is certified.

According to Romania's national report at the end of 2008, the following numbers of sites were recorded:

- Number of lower tier establishments 161
- Number of upper tier establishments 113

SPIRS data February 2009

- Number of lower tier establishments 162
- Number of upper tier establishments 115

December 2009

- Number of lower tier establishments 170
- Number of upper tier establishments 116

Romania identified and reported TEIA/ 2009 the following hazardous activities:

- RAAN Suc. ROMAG PROD
- FONTEGAS ROCCADA SPIDE
- SC CRIMBO GAS SRL
- SC AZOCHIM SA
- SC DONAUCHEM SRL

A.2.3 Ukraine

Presented by Iryna Shtets

A.2.4 Belarus

A.2.4.1 Laws and Normative Legal Acts for hazard prevention in Belarus

- Law "On industrial safety of dangerous industrial objects" (for organizations entrusted with the tasks and to ensure the safety of production facilities);
- Law "On Trunk Pipeline Transport" (regulates relations in the safe operation of facilities pipelines);
- Law "On protection of population and territories from emergency situations of natural and man-made" (defines the powers and duties of public authorities and organizations in the prevention of emergency situations);
- Emergency Decree "On approval of rules of organization and implementation of self-monitoring of compliance with industrial safety at hazardous industrial facilities";

Specially authorized bodies of supervision and control carry out the system of state technical supervision of the safe operation of major hazard installations. This applies to all manufacturers, operating under authority granted by the legislation supervisory activities aimed at warning and suppression of violations of the requirements of technical safety. Accidents and disasters to man-made objects in high-risk hazardous activities through the organization and implementation of regulatory (formulation and adoption of legal and other regulations, licensing of, and others), supervision, monitoring and expert activity, the system (a defined periodicity and volume) of the survey of

heightened danger, issuing regulations to address the violations and establishing control over their implementation.

Supervision is carried out in several stages:

- Construction,
- Reconstruction
- Technical re-equipment,
- Operation,
- Decommissioning of hazardous facilities.

Safety issues are also addressed at the stage of the land selection and design. A system of training, retraining and advanced training of personnel and hazardous facilities in institutions of education, organizations, and certification and verification of knowledge on technical security, emergency operations and other matters within their responsibilities to ensure safe operation of hazardous facilities.

A.2.4.2 Measures for the prevention of accidents and disasters

- The organization of monitoring and forecasting emergencies (monitoring of the safety of buildings and critical infrastructure man-made disaster prediction)
- Development of Industrial Safety Declaration

Comprehensive assessment of the risk of accidents and threats analysis of the adequacy of measures taken to prevent accidents and ready for operation of hazardous production facilities of the analysis of the adequacy of measures taken to locate and develop emergency response measures to reduce the scale of the consequences of accidents and the amount of damage in the event of an accident

- Design of plan of localization of emergency situation

Forecasting and scenario analysis stepwise incidents and accidents assessment of the adequacy of measures to prevent emergence and development of accidents as well as capabilities to protect people, location, and emergency response planning for personnel and specialized units to locate and eliminate incidents and accidents in minimum time

- Maintain public register of dangerous industrial objects

Records of hazardous industrial facilities and organizations exploit their collection, processing and analysis of data on hazardous production facilities informing government bodies, executive bodies and local self-government

- Licensing of dangerous industrial

Activities to grant, suspend, resume, and revocation of licenses for the control of the licensing authorities' compliance with the license terms and conditions

- Certification of dangerous objects

Identification of indicators of risk for emergency facility personnel and the public determine the possibility of disaster in a hazardous assessment of the likely consequences of the disaster in a hazardous assessment of the possible impact of emergencies that have arisen in the neighboring facilities assessment work on prevention and preparedness for the Elimination of ES development of measures to reduce risk and mitigate the effects of disaster at the facility

A.3 Provisions on information to the public and public participation with regard to industrial safety

A.3.1 Republic of Moldova

Presented by Tatiana Plesco, leading management consultant of analysis, monitoring and evaluation of policies

A.3.1.1 Laws and Normative Legal Acts for public participation in the Republic of Moldova

- Law on Industrial Safety of Hazardous Production Facilities (2000) (purpose - making at the national level of measures aimed at exclusion, prevention and mitigation of industrial accidents and industrial accidents)
- The Law on Access to Information (2000) - a common regulatory framework governing access to official information
- Law on Ecological Expertise and Environmental Impact Assessment (1996)
- Regulations on public participation in development and decision-making for the Environment (2000)
- The position of a national network of surveillance and laboratory monitoring for infection (contaminated) environment with radioactive, poisonous, highly toxic substances and biological agents (2006) - establishes the order and organization of a national network of surveillance and laboratory control problems in emergency situations, how to transfer information.
- The order of the collection and exchange of information in the field of population and territory in emergencies (2003)

International Conventions

- Convention on the Transboundary Effects of Industrial Accidents
- Convention on Environmental Impact Assessment in a Transboundary Context
- The Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters
- Convention on the Protection and Use of Transboundary Watercourses and International Lakes
- The Convention on Long-Range Transboundary Air Pollution

The law on Environmental Protection is currently undergoing revision. The reform of national legislation is due to:

- State policies aimed at European integration
- Process of harmonizing national legislation with the European Community
- Compliance with the requirements of international conventions (the absence of clear legislation requirements and procedures to comply with the conventions, including education and public participation)

- Priority direction of reform - the development of horizontal legislation, which includes:
- Assessment of environmental impact, strategic environmental assessment
- Public participation in decision-making in the field of environmental protection, access to environmental information, access to justice

In the draft version of the new law, in Section III access to Information, Public Participation in Decision-Making and Access to Justice in environmental matters are specified. It establishes the responsibilities of government agencies at central and local public administration.

The draft Law on Environmental Impact on the environment includes the requirements of the Espoo Convention and a number of European directives. Public information and participation in decision making at the national level and transboundary is specified at the notification stage and at the scoping stage, as well as in developing the program impact assessment participation in impact assessment procedure (comments and public hearings).

A draft agreement has been developed between the Ministry of Environment of the Republic of Moldova and the Ministry of Environment and Natural Resources of Ukraine on compliance with the Espoo Convention.

On the other hand, the Draft Law on Industrial Safety of Hazardous Production Facilities include partial requirements of the Convention on the Transboundary Effects of Industrial Accidents, and a number of European directives but does not contain requirements for public awareness and participation.

Further, there is the National Action Plan for implementation in the Republic of Moldova of the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (2011-2015), adopted by the Government 28.06.2011. The Action Plan envisages to develop the draft Law on Access to Information, the draft law on ratification of protocol on pollutant release and transfer, a strategy to implement national PRTR, and communication strategies within the framework of central public administration bodies and their subordinate agencies. It will also establishment of electronic databases in the environment with access to the general public etc.

A.3.2 Romania

Presented by Marilena Ghiu, Ministry of Environment and Forests

A.3.2.1 Laws and Normative Legal Acts for public participation in Romania

- Convention on environmental impact assessment in a transboundary context, Espoo (Finland), February 1991; law 22/2001
- Convention on access to information, public participation in decision-making and access to justice in environmental matters Aarhus (Denmark), June 1998; law 86/2000
- Convention on the protection and use of transboundary watercourses and international lakes, Helsinki, 1992 – law 30 /1995
- Convention on long - range transboundary air pollution done at Geneva, 1979; law 271/2003 for the ratification of protocols of the convention on long-range transboundary air pollution
- Seveso Directive

Under the Seveso Directive, adequate information is given to the public in the areas likely to be affected by an industrial accident arising out of a hazardous activity.

In the areas likely to be affected, the public is given the opportunity to participate in relevant procedures, with the aim of making known its view and concerns on prevention and preparedness measures, and it shall be ensured that the opportunity given to the public of the affected Party is equivalent to that given to the public of the Party of origin. In **Article 13** of the Seveso Directive is states that informing the public about the safety measures and the actions to be taken in case of an emergency. Information in this context always must be transmitted in an active way on a regular basis and be available for everybody.

Public access to safety reports provide greater transparency, which can remove some of the concerns regarding industrial operation. Public consultation and testing the emergency plans in field exercises is required.

Who is the public?

In the Romanian law, “the public” is defined in the law 86/2000 on access to information, public participation in decision-making and access to justice in environmental matters, which transposes the Aarhus Convention (Article 2) :

“The public” = one or more natural or legal persons, and, in accordance with national legislation or practice, their associations, organizations or groups;

“The public concerned” = the public affected or likely to be affected by, or having an interest in, the environmental decision-making; for the purposes of this definition, non-governmental organizations promoting environmental protection and meeting any requirements under national law shall be deemed to have an interest.

A.3.3 Ukraine

A.3.3.1 Laws and Normative Legal Acts for public participation in Ukraine

- Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 1991)
- Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, Aarhus, 1998
- Law of Ukraine on the access to the public information
- Resolution of the Ukraine Cabinet of the Ministries №1378 of 15.10.2004 on some matters on provision of the public participation in the development and implementation of the national politics
- Order of the MENR of Ukraine №168 of 18.12.2003 on the provision on public participation in decision making in environmental matters
- Order of the MENR of Ukraine №393 of 01.11.2005 on provision to the population visa mass media of the trimestrial information about the most pollutant objects as regards the environment

A.3.3.2 Management coordination of risk situations

According to Ukrainian law, the owner of the object must inform the population and the public about the dangerous objects, risk situations, whose occurrence led or could led to an accident.

The executive bodies of the councils consider the project documentation at opened meetings, with public participation. The date and time of such meetings is offered via mass media. Only after the public debates regarding the project and by public approbation the executive bodies decide on the appropriateness of the project implementation.

One of the legal tools for the environmental protection against anthropogenic impact is the realization of the ecological expertise of the objects at the stage of location, projection, construction and exploitation. Also, in order to determine and prevent the negative impact on population and environment, the owner of the object should provide the authorized state bodies the materials on the Environment Impact Assessment (EIM) and the complex of measures for its prevention.

A.3.3.3 Coordination bodies

Commissions that deal with technical and ecological security and emergency situations at all levels (state, regional, rayonal and related to object).

Authorized bodies of the state management of the technical and ecological safety and emergency situations

- At state level: Ukraine Cabinet of Ministries, ministers and other central bodies;
- At regional level: Council of Ministries of Crimea Republic, regional and city administrations
- At local level: Rayonal state administrations and executive bodies of the councils;
- At object level: Structural subdivisions of the enterprises, institutions and organizations or special authorized persons on emergency situations matter.

Voluntary public associations are given the proper level of training, which is confirmed by attestation. They should coordinate their activities with the territorial bodies and bodies responsible for emergency situations and civil protection and the work should be carried out under their supervision.

A.3.3.4 Public participation in solving environment matters

According to the Ukrainian laws, the public organizations play an important role in the environmental policy of a country. The public environmental organizations and public representatives actively participate in the project documentation debates, carry out public expertise of the EIA materials and of other declarations related to the ecological, prepare appeals to the state authorities with regard to actual environmental matters. The public representatives have a right to collect information on safety standards of hazardous objects and to submit it to the responsible authorities, coordination bodies in the field of technical and ecological safety and emergency situations, as well as to mass media.

MENR of Ukraine keeps a continuous contact with more than 200 environmental public organizations, that participate in the development of national programs, normative legislative acts, expertise of the construction or reconstruction of environmental dangerous objects, protection of population rights and control of the Aarhus convention implementation. In order to ensure public participation in decision-making, dedicated units were established in the framework of the MENR, including the Public Council of organizations and associations in the environmental protection field. The Council comprises 16 public organizations registered by the MoJ, as well associations, coalitions and WG. Furthermore MENR maintains an Aarhus Informational Centre, created in 2003.

A.3.3.5 Interaction with mass media

At present, mass media is a socio-political factor that influences the society, economy, politics and the worldview. The mass media plays an important role as social management tool during emergency situations as it is the primary source of information during an emergency.

MENR of Ukraine actively cooperates with mass media and provides data on occurred emergencies, information on the ecological state and the impact on the environment.

The active cooperation with mass media, such as TV, radio and press allows the quick information of population regarding the emergency situations. The Internet is also used; all the information related to the emergencies is placed on the MENR website.

A.3.4 Belarus

Presented by Dedul Leonid, First Deputy Chief of the Ministry of Emergency Situations of the Republic of Belarus

Current legislation in the field of industrial safety, prevention and emergency response states that information in the field of industrial safety, as well as information on the activities of republican government authority in the field of industrial safety, and other national government bodies, local executive and administrative bodies and organizations in this area is public and open. Concealment, failure to submit a presentation, or presenting knowingly false information is punishable within the laws of the Republic of Belarus. Associations in accordance with the law are entitled to exercise control over compliance with requirements of industrial safety.

In accordance with the Law of the Republic of Belarus "On local government and self-government in the Republic of Belarus" citizens residing in the territory of the administrative-territorial units (area neighborhoods, housing complexes, neighborhoods, streets, yards, agricultural towns, townships, villages, etc.) can participate in addressing local issues (Including issues of safety). As part of this activity, they can make decisions and initiatives:

- Assist in the realization of the rights, freedoms and lawful interests of citizens;
- study, analysis and consideration of the views of citizens on environmental issues;
- assist authorized agencies in the implementation of crime prevention (including the protection from emergencies).

Civil society organizations whose activities are related to the prevention of emergencies includes the "Belarusian Voluntary Fire Society" (BDPO) which addresses the problems of combining the efforts of citizens and contributes to the state governments, local authorities and organizations in preventing and managing fires and emergencies. Another organization is the Belarusian youth public organization of rescuers and fire (BMOOSP) which addresses the problems of preparing young people for safe living, attract the attention of a parent, educational and creative community to the problem of natural and manmade.

A.3.4.1 System (control) of industrial safety

Legal regulation of citizens' individual and collective proposals, statements and complaints to government agencies and other organizations (to officers), and consideration of proposals, and complaints of citizens in economic, political, social and other spheres of government and society is carried out according to the Law of the Republic of Belarus "On appeals of citizens".

Citizens have the right to review materials related to the consideration of appeals to appeal against decisions taken on their applications, the higher state bodies, other organizations (the higher officials), and (or) in court, etc. The Presidential Decree "On additional enforcement measures to work with citizens and legal entities" also contains a list of government agencies and other organizations responsible for hearing appeals on the merits of the individual spheres of public

Communication channels to reach out to the public:

- periodicals
- TV and radio broadcasting
- websites supervisors (*Posted requirements of technical regulations, as well as the most typical violations of safety standards at work sites*)
- exercises, training courses
- land refresher training

B INTERNATIONAL STANDARDS AND GOOD PRACTICE IN HAZARD MANAGEMENT

B.1 Requirements on identification and safe operations of hazardous activities in accordance with the Water Framework Directive and Danube Convention

Presented by Yurii Nabyvanets, Co-chairperson of the Accident Prevention Expert Group, International Commission for the Protection of the Danube River

B.1.1 Danube Convention and ICPDR

The Convention on Cooperation for the Protection and Sustainable use of the Danube River (Danube River Protection Convention - DRPC) was signed on 29 June 1994 in Sofia, Bulgaria. It is the legal frame for cooperation to assure the protection of water and ecological resources and their sustainable use in the Danube River Basin. The signatories to the DRPC have agreed to **co-operate on fundamental water management** issues by taking "all appropriate legal, administrative and technical measures to at least maintain and where possible improve the current water quality and environmental conditions of the Danube river and of the waters in its catchment area, and to prevent and reduce as far as possible adverse impacts and changes occurring or likely to be caused."



Figure 1 Danube catchment area

The International Commission for the Protection of the Danube River (ICPDR) is a transnational body, which has been established to implement the Danube River Protection Convention. The ICPDR is formally comprised by the Delegations of all Contracting Parties to the Danube River Protection

Convention, but has also established a framework for other organizations to join. Among the priorities of the ICPDR are:

- strengthen international cooperation
- ensure sustainable water management
- ensure conservation, improvement and rational use of surface waters and ground water
- reduce inputs of nutrients and hazardous substances
- control floods and ice hazards
- reduce pollution loads of the Black Sea

The Contracting Parties to the DRPC presently include Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Germany, Hungary, the Republic of Moldova, Montenegro, Romania, Slovakia, Slovenia, Serbia, Ukraine and the European Union. The Danube Declaration

The countries sharing the Danube River Basin also endorsed a 'Danube Declaration', which expresses their commitment to further reinforce transboundary cooperation on sustainable water resource management within the Danube region. The EU Danube Strategy was published in late 2010 and aims at better coordination and alignment of policies and funding.

B.1.2 Danube Convention requirements

The convention recognizes the urgent need for strengthened domestic and international measures to prevent, control and reduce significant adverse transboundary impact from the release of hazardous substances and of nutrients into the aquatic environment within the DRB with due attention also given to the Black Sea. To meet the goals, Contracting Parties shall cooperate and take appropriate measures to avoid the transboundary impacts of wastes and hazardous substances in particular originating from transport.

Regarding the Danube Delta Project (DDP) following articles are in particular relevant:

Article 7: Emission limitation: water quality objectives and criteria

(1) The Contracting Parties taking into account the proposals from the ICPDR shall set emission limits applicable to individual industrial sectors or industries in terms of pollution loads, and concentrations

Where hazardous substances are discharged, the emission limits shall be based on the best available techniques for the abatement at source and/or for waste water purification.

(2) Supplementary provisions for preventing or reducing the release of hazardous substances and nutrients shall be developed by the Contracting Parties for non-point sources, in particular where the main sources are originating from agriculture, taking into account the best environmental practice.

(3) For the purpose of paragraphs 1 and 2 Annex II to this Convention contains a list of industrial sectors and industries as well as an additional list of hazardous substances and groups of substances, the discharge of which from point and non-point sources shall be prevented or considerably reduced.

Article 8: Emission inventories, action programmes and progress reviews

(1) The Contracting Parties taking into account the proposals from the ICPDR shall set emission limits applicable to individual industrial sectors or industries in terms of pollution loads, and concentrations

Where hazardous substances are discharged, the emission limits shall be based on the best available techniques for the abatement at source and/or for waste water purification.

(2) Supplementary provisions for preventing or reducing the release of hazardous substances and nutrients shall be developed by the Contracting Parties for non-point sources, in particular where the main sources are originating from agriculture, taking into account the best environmental practice.

(3) For the purpose of paragraphs 1 and 2 Annex II to this Convention contains a list of industrial sectors and industries as well as an additional list of hazardous substances and groups of substances, the discharge of which from point and non-point sources shall be prevented or considerably reduced.

Article 12: Exchange of information

(1) As determined by the ICPDR the Contracting Parties shall exchange reasonably available data, inter alia, on:

- (a) the general conditions of the riverine environment
- (b) experience gained in the application and operation of BAT
- (c) emission and monitoring data;
- (d) measures taken and planned to be taken to prevent, control and reduce transboundary impact;
- (e) regulations for waste water discharges;
- (f) accidents involving substances hazardous to water.

(2) In order to harmonise emission limits, the Contracting Parties shall undertake the exchange of information on their regulations.

Article 16: Communication, warning and alarm systems, emergency plans

The Contracting Parties shall provide for coordinated or joint communication, warning and alarm systems in the basin-wide context to the extent this is necessary to supplement the systems established and operated at a bilateral level.

They shall consult on ways and means of harmonizing domestic communication, warning and alarm systems and emergency plans.

B.1.3 EU Water Framework Directive (WFD)

The implementation of WFD has highest priority for ICPDR, it is the platform for coordination and establishment of the River Basin Management Plan for the Danube River Basin. Contracting Parties will make all efforts to achieve a coordinated River Basin Management Plan for the Danube River Basin

EU Water Framework Directive (WFD) – key principles:

- Integrated management of water resources on the basin-wide scale
- Taking into account and addressing all pressures and impacts
- Achievement (by 2015) of environmental objectives (good water status/potential) is a legal requirement

- Development of River Basin Management Plans including a Programme of Measures for the achievement of WFD objectives

The WFD is an EU Directive and therefore legally binding for (the 8) EU Member States, however not all Danube countries are EU Member States (6 are Non-EU Member States).

WFD Article 3(5): “appropriate coordination with relevant non-EU Member States shall be endeavored for achieving WFD objectives”

WFD Article 3(6): “Member States may identify an existing national or international body as competent authority for the purposes of this Directive”

The implementation of the EU Water Framework Directive in the Danube River Basin is a legal requirement for the 8 EU Member States. The non-EU Member States have made a political commitment to make all efforts to achieve a coordinated River Basin Management Plan. As a result, the 1st Danube River Basin District Management Plan (DRBMP) was adopted end 2009.

WFD River Basin Management Plans are a key instrument for trans-boundary cooperation on climate change adaptation in the water sector

Good chemical status is defined in terms of compliance with all the quality standards established for chemical substances at European level. The Directive also provides a mechanism for renewing these standards and establishing new ones by means of a prioritization mechanism for hazardous chemicals. This will ensure at least a minimum chemical quality, particularly in relation to very toxic substances, everywhere in the Community.

Danube River Basin Management Plan

The plan reflects the water status of the DRB waters and specifies significant Water Management Issues. It includes a joint Programme of Measures and an evaluation on measure implementation. Furthermore, it enables conclusions on investment & funding and creates a potential link to Danube Strategy.

B.1.4 Accident Prevention/Control

A better structure the reporting obligations is proposed to ensure an efficient system for exchange of information needed during accidents through:

- (i) involvement of all countries in the update of the ARS inventories
- (ii) new mining sites inventory,
- (ii) establishment of a procedure to ensure a permanent update of national reports,
- (iii) ensuring a procedure to check the criteria, the ranking and assessment results of the risk sites done at the national level,
- (iv) implement the methodology of quantification of real risk for all identified risk sites, and
- (v) prepare yearly reports on accidental pollution events for each country and a basin wide compilation with all risk sites visualized in maps.

ICPDR maintains & updates inventories of Accident Risk Spots & Contaminated Sites (waste deposits, industrial units) and assesses the implementation of methodologies and guidelines. These are provided for ranking accident risk sites, quantifying real risk with consideration of current level of safety at respective industrial plant and evaluating risk of contamination of sites in flood areas. The most recent update was done as input into Tisza RBMP.

Inventories and risk assessment

Upcoming tasks include the update of the existing inventory of Accident Risk Sites and of contaminated sites susceptible to flooding 10 countries complete, BG, B&H, and SI missing which is due in November 2011. Further, reporting obligations will be better structured to ensure efficient system for exchange of information needed during accidents and quantification of real risk of sites included in inventories will be organized, based on existing methodology and considering safety of measures at respective plant.

Catalogue of measures and implementation progress:

The catalogue of safety measures is currently being updated and its implementation is assessed. An evaluation of the quality and quantity of prevention, or of the safety rating of the ARS concerned, is ongoing. Four major instruments are used:

- Recommendations for safety guidelines to improve the actual standard of safety measures
- Application of existing and development of new checklists to control the realized safety measures at existing ARS.
- Safety Recommendations for Refineries
- Recommendations and Checklists for the Safety of Tailing Dams

Hazard risk mitigation and emergency preparedness for mining accidental spills

Ongoing work in this area is currently assessing the Mining Wastes Directive implementation and seeks to develop a specific mining sites inventory. The goal is to prepare the mining sites map and to update and implement the Guidelines and good practices for Tailing Management Facilities.

Emergency Management and Contingency Planning:

ICPDR conducted a survey on the current situations related to the existence of agreements and related procedures on mutual assistance in the DRB. The results will be used for the preparation of general guidelines/principles on major relevant areas, such as guidelines for emergency management procedures during accidental pollution that can be shared by the Danube countries.

B.2 Requirements on identification and safe operations of hazardous activities-in accordance with Seveso II directive

Presented by John Vijgen, Civil Protection Expert, PPRD East Programme of the European Union

B.2.1 Aim of the Seveso directive

The aim of the Seveso II Directive is two-fold. Firstly, the directive aims at the prevention of major-accident hazards involving dangerous substances. Secondly, as accidents do continue to occur, the directive aims at the limitation of the consequences of such accidents not only for man (safety and health aspects) but also for the environment (environmental aspect). Both aims should be followed with a view to ensuring high levels of protection throughout the Community in a consistent and effective manner.

B.2.2 Scope

The scope of the Seveso II Directive deals solely with the presence of dangerous substances in establishments. It covers both, industrial "activities" as well as the storage of dangerous chemicals. The directive can be viewed as inherently providing for three levels of proportionate controls in practice, where larger quantities mean more controls. A company who holds a quantity of dangerous substance less than the lower threshold levels given in the Directive is not covered by this legislation but will be proportionately controlled by general provisions on health, safety and the environment provided by other legislation, which is not specific to major-accident hazards. Companies that hold a larger quantity of dangerous substance, which is above the lower threshold contained in the directive, will be covered by the lower tier requirements. Companies that hold even larger quantities of dangerous substance (upper tier establishments), which is above the upper threshold contained in the directive, will be covered by all the requirements contained within the directive.

Important areas excluded from the scope of the Seveso II Directive include nuclear safety, the transport of dangerous substances and intermediate temporary storage outside establishments and the transport of dangerous substances by pipelines.

B.2.3 General and Specific Obligations

The directive contains general and specific obligations on both operators and the Member States' authorities. The provisions broadly fall into two main categories related to the two-fold aim of the directive, that is control measures aimed at the prevention of major accidents and control measures aimed at the limitation of consequences of major accidents.

The Seveso II Directive is based on Article 174 (ex-Article 130s) of the EC Treaty. It is important to mention that, according to Article 176 (ex-Article 130t) of the EC Treaty; Member States can maintain or adopt stricter measures than those contained in the Seveso II Directive.

All operators of establishments coming under the scope of the directive need to send a notification to the competent authority and to establish a major accident prevention policy. In addition, operators of upper tier establishments need to establish a safety report, a safety management system and an emergency plan.

The competent authorities of the Member States may, at the request of an operator, decide that he may limit the information to be provided in his Safety Report (dispensation rule). The Commission Decision of 26 June 1998 (pdf format) (OJ No L 192 of 8 July 1998, p.19) contains harmonized criteria to be applied by the competent authorities when examining requests for dispensations.

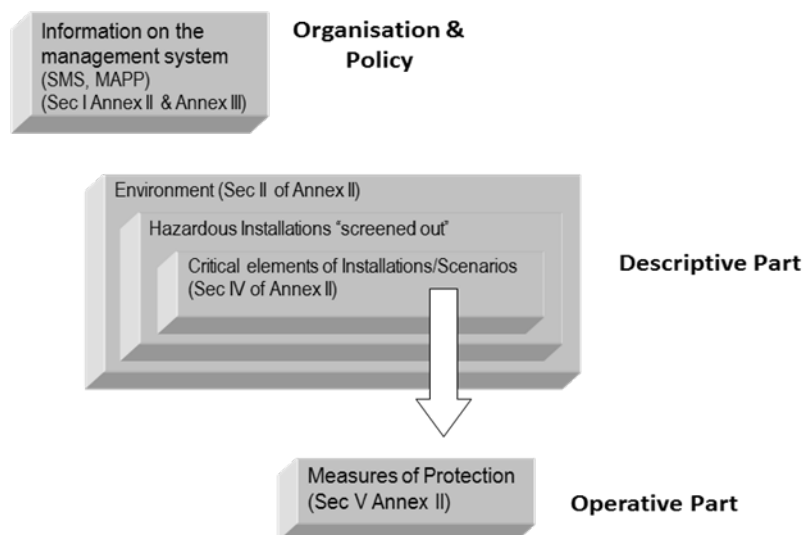


Figure 2 Seveso II Directive

B.2.4 Safety management systems

The introduction of safety management systems has taken account of the development of new managerial and organisational methods in general and, in particular, of the significant changes in industrial practice relating to risk management, which have occurred over the past ten years. One of the main objectives pursued by this obligation is to prevent or reduce accidents caused by management factors, which have proven to be a significant causative factor in over 90% of the accidents in the European Union since 1982.

B.2.5 Emergency plans

Internal Emergency plans for response measures to be taken inside establishments have to be drawn up by the operator and to be supplied to the local authorities to enable them to draw up External Emergency Plans. Emergency Plans have to be reviewed, revised and updated, where necessary. Important new elements require operators to consult with their personnel on Internal Emergency Plans and on the local authorities to consult with the public on External Emergency Plans. The Seveso II Directive contains an obligation to regularly test in practice the Internal and External Emergency Plans.

B.2.6 Land-Use Planning

This new provision reflects the 'lesson learnt' from the Bhopal accident that the land-use planning implications of major-accident hazards should be taken into account in the regulatory process. Member States are obliged to pursue the aim of the directive through controls on the siting of new

establishments, modifications to existing establishments and new developments such as transport links, locations frequented by the public and residential areas in the vicinity of existing establishments. In the long term, Land-use Planning Policies shall ensure that appropriate distances between hazardous establishments and residential areas are maintained.

B.2.7 Two-tier approach

The Seveso II Directive follows a so-called two-tier approach which means that for each named substance and for each generic category of substances and preparations, two different qualifying quantities (threshold levels) are mentioned in Annex I, Parts 1 and 2 of the Directive, a lower and an upper value. It is assumed that the risk of a major-accident hazard arising from an establishment in which dangerous substances are present increases with the quantities of substances present at the establishment. Consequently, the Directive imposes more obligations on upper tier establishments than on lower tier establishments. In fact, the Directive can be viewed as inherently providing for three levels of ‘proportionate’ controls in practice, where larger quantities mean more controls. A company who holds a quantity of dangerous substance less than the lower thresholds given in the Directive is not covered by this legislation but will be proportionately controlled by general provisions on health, safety and the environment provided by other legislation, which is not specific to ‘major-accident hazards’. Companies who hold a larger quantity of dangerous substance, above the lower threshold contained in the Directive, will be covered by the ‘lower tier’ requirements. Companies who hold even larger quantities of dangerous substance, above the upper threshold contained in the Directive, will be covered by all the requirements contained within the Directive. Control measures aimed at limitation of the consequences:

Upper and lower tier

- General obligations (SMS, MAPP)
- Land-Use Planning

For upper tier only

- External Emergency Planning
- Written Safety Report
- Information to the Public

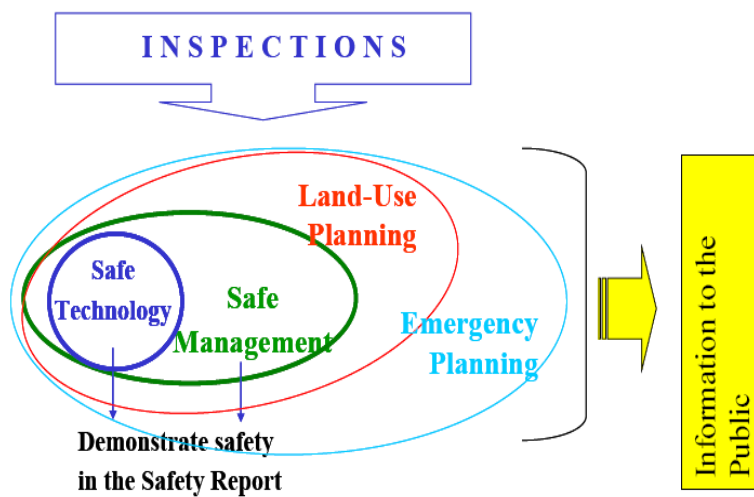


Figure 3 Areas of accident prevention, preparedness & response –parts of an advanced Safety Culture

B.3 Requirements on identification, safe operations of hazardous activities and public participation in decision making process in accordance with the Industrial Accidents Convention

Presentd by Lukasz Wyrowski, Officer in Charge, Convention on the Transboundary Effects of Industrial Accident

The requirements of the Convention foresee that the Parties shall adopt appropriate legislation and measures for the identification and control of hazards capable of causing industrial accidents. They shall ensure functioning of the policies and legislation in practice (adequate number of personnel at competent authorities available to enforce the policies and legislation in practice). While the requirements specified in the Convention are addressed to Parties (= competent authorities), they implicitly also address operators of HA.

B.3.1 Requirements of the industrial accident convention

Requirements of the Convention Article 3 (general requirements):

- (1) the Parties shall take appropriate measures to protect human beings and the environment against industrial accidents by preventing such accidents as far as possible, by reducing their frequency and severity and by mitigating their effects
- (2) the Parties shall develop and implement policies and strategies for reducing the risks of industrial accidents and improving preventive, preparedness and response measures

Requirements of the Convention Article 4 (identification, consultation and advice):

- (1) the Parties shall take appropriate measures to identify hazardous activities within their jurisdiction
- (2) the Parties shall ensure that affected Parties are notified of any existing or proposed activity

Requirements of the Convention Article 6 (prevention):

- (1) the Parties shall take appropriate measures for the prevention of industrial accidents
- (3) the Parties shall ensure that operators reduce the risk of industrial accidents (list of measures in Annex IV)
- (3) the Parties shall require the operators to demonstrate the safe performance of hazardous activity (list of measures in Annex V)

Requirements of the Convention Article 7 (decision making on siting):

- (1) the Parties shall seek the establishments of policies on the siting of hazardous activities

- (3) the Parties shall seek the establishment of policies on significant developments in areas which could be affected by transboundary effects of an industrial accident arising out of a hazardous activity so as to minimise the risks involved
- (3) matters which could be considered ... Annex VI

Requirements of the Convention Article 9 (information to, and public participation)

- (1) the Parties shall ensure that adequate information is given to public (Annex VIII)
- (3) the Parties shall give the public an opportunity to participate in relevant procedures on prevention and preparedness measures
- (3) same rights for own and public of affected Party

CONTROL = IDENTIFY and PREVENT + reduce frequency, reduce severity + MITIGATE

These requirements are important to meet the responsibility of a country towards its population and to establish clear rules for the investors and future operators. The Convention relates to accidents with transboundary potential – but its requirements are applicable for hazardous activities in general (hazardous activities having or not having a potential for accidents with transboundary effects).

Following matters should be considered by competent authorities as preventative measures (Annex IV):

- 1. the setting of safety objectives
- 2. the adoption of legislative provisions
- 3. the identification of hazardous activities which require special preventive measures
- 4. the evaluation of risk analysis or of safety studies
- 5. the provision of information to CA to assess risks
- 6. the application of most appropriate technology / BAT
- 7. (the establishment of internal managerial structures and practices designed to implement and maintain safety regulations effectively)
- 8. (the undertaking of appropriate education and training on – site)
- 9. (the monitoring and auditing of hazardous activities and carrying out inspections)

Analysis and evaluation (Annex V)

- 1. quantities and properties of hazardous substances and the conditions in which hazardous substances are handled
- 2. scenarios of possible industrial accidents
- 3. for each scenario: a description of events which could initiate an industrial accident and the steps whereby it could escalate, time-scale of events, equipment and procedure designed to minimise the likelihood of each step occurring, quantity of release, the extent and severity of consequences, actions to minimise the likelihood of escalation, the distance from the HA at which harmful effects on people and environment may occur
- 4. size and distribution of population in the vicinity with age, mobility, susceptibility
- 5. the severity of the harm inflicted on people and the environment, depending on the circumstances of the release
- 6. (assessment of effects that deviations from normal operating conditions could have and the consequent arrangements for safe shut down; assessment of the need for staff training to

ensure that potentially serious deviations are recognized at an early stage and appropriate action taken)

7. (an assessment of the extent to which modifications, repair work and maintenance work on the hazardous activity could place the control measures at risk and the consequent arrangements to ensure control is maintained

Competent authorities ensure that legislation defines as a minimum:

- a. responsibility of a competent authority to take hazards into account in permitting procedures
- b. identification parameters /when hazards of major accidents need to be taken into account
- c. safety analysis (demonstration of safe operation of planned hazardous activity) = basis for granting / denying permit
- d. criteria for granting / denying permit
- e. permitting procedure

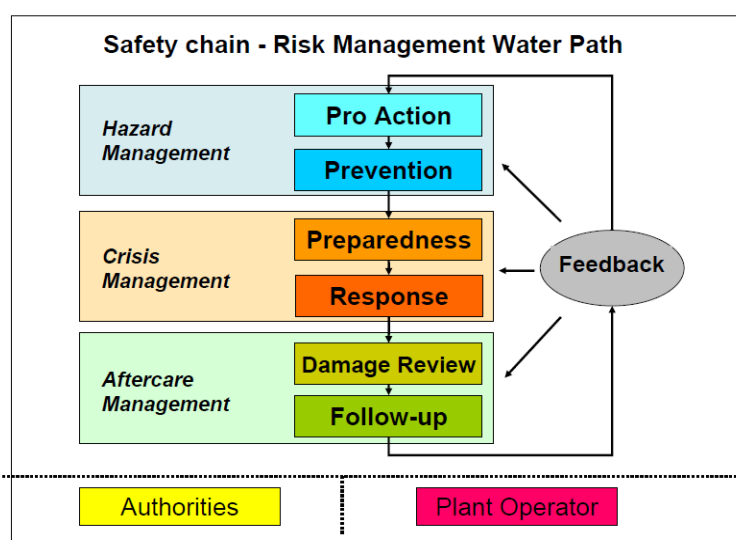
Competent authorities ensure functioning of permitting system in practice that investors / future operators know the policy of a country with regard to permitting HA, know the rules, know how to “demonstrate safety” (scope and content of safety analysis) and know the procedure

B.4 Examples of national good practices on hazard management – German checklist system

Presented by Gerd Hofmann, Regierungspräsidium Darmstadt, Department for Occupational Safety and Environment Frankfurt, Germany

Example scenarios of accidental water pollution by industrial plants:

- Inflow of a leak into the soil or water
- Contaminated fire fighting water
- Malfunction of the waste water plant
- Accident during the transport
- Damage of installation as a result of flood



B.4.1 Prevention – governmental activities

Prevention of industrial accidents involves licensing and inspection of HA before bringing commissioning of the plant, during operation and after closure of the installations. Recurring problems in this area include cases where requirements of the license are **not completely realized**, installation are used **without a license**, during the operating time **defects arise** because of missing self-control and incorrect service and when installations are not **closed down according to the rules**.

B.4.2 Legal bases for inspections

EU law

- Environmental inspections of industrial plants are based on different requirements
- EU-Recommendation of providing minimum criteria for environmental inspection (2001/331/EU)
- Inspection according statutory order on hazardous incidents (Seveso Directive)
- Measure according article 11 (3) (L) Water Framework Directive

German national law

§ 100 Wasseraufsicht – state supervision

(1) It is the task of the water authorities to control the water bodies and the compliance of the legal obligations

Instruments to implement the provisions according to the legal framework include :

- Right to enter the properties
- Duty of the operator to give necessary information
- Right to give ruling, for example to realize technical or organizational measures
- Right to sample drawing and operation of measurements
- Right to close down the installations

Monitoring of HA consists of a three-stage concept:

1. Self-control by the companies
2. Control by external experts
3. Inspections by the authorities

In order to implement the monitoring requirements accordingly, it is important to inventories potential sources (hazardous substance, installations) and to provide safety arrangements according to the best available technology. Authorities target technical and operational risk management for incidents, which can not handled by the safety arrangements of the plants.

Instruments of Quality Management may:

- Support staff in daily functions and provide knowledge about how legislation and administrative procedures are used in the daily work.
- Introduce all staff to the administrative processes and its contents in details.
- Secure consistency in administrative approach.
- Support continuous improvements with a feed back system.
- Give staff access to updated know-how and information.
- Aim at efficient and expeditious case handling without unnecessary administrative delays with use of sufficient and necessary resources.
- Minimize procedural errors.

B.4.3 Checklist method

Checklists are widely used in securing the quality of risk management at HA. There are numerous advantages to using the checklist-method. These include the following:

- Consistent procedure
- Systematic method
- Base for documentation
- Thread for inspection of complex installations

- Quality control
- Tool for beginners

The procedure of using checklists consists of the following steps:

1. Dividing the factory into smaller units
2. Choosing the relevant checklists for the selected installation
3. Result of using the checklist:
 - a. Catalog of defects which are detected
 - b. Possible measures for rebuilding
 - c. Assessment the risk-level of the installation

The checklists feature a modular design for inspection of safety equipment of installations. Their goal is to facilitate inspections of complex installations as well as less demanding sites at the same time. This requires the selection of relevant checklists. The questionnaire included in the checklist system is based on the recommendations of the international river basin commission.

Checklists are structured in following manner:

- Description of the safety requirements of installation (and parts of it) according to the recommendations
- Questions catalog
- Examples of measures
- Assessment of the risk up to date

Checklists exist on the following topics:

- Substances
- Overfill safety systems
- In-plant pipeline safety
- Joint storage
- Sealing systems
- Wastewater split flows
- Transshipment
- Fire protection strategy
- Plant monitoring
- Internal alarm and hazard control planning
- Industrial plant in areas with a risk of flooding
- Structure of Safety reports
- Storage
- Equipement of tanks

Effective water protection needs permission and inspections. The licenses are only effective, when their regulations are controlled. Effective inspections should be planned according to the risk potential of the companies. Checklists ensure a consistent and systematic procedure of inspections and realized a high quality. Checklists support the inspectors in his work

B.5 Examples of national good practices on hazard management – Licensing and inspection system in Germany concerning facilities for handling substances hazardous to water

Presented by Walter Reinhard, Regierungspräsidium Darmstadt, Department for wastewater and industrial water protection, Germany

B.5.1 Legal bases

Federal Water Act (WHG)

§ 62 Installations for storage, filling, manufacturing and treatment of substances constituting a hazard to water, as well as installations for the use of such substances in industry and in the public sector, must be designed, constructed, maintained, operated and decommissioned in such a way that no adverse changes in the properties of waters are to be feared.

Installations may only be designed, constructed, maintained, operated and decommissioned in accordance with the best available technology (BAT).

Austrian Water Code

§ 31a Installations for storage and conduct of substances ...

(3) details will be constituted in a special Ordinance

Ordinance (VAWS) include more detailed provisions governing:

- The identification of substances constituting a hazard to water and their classification according to their level of hazardousness (WRC 1,2,3)
- The properties of installations
- Obligations with respect to the construction, maintenance and operation including filling and emptying by third parties...
- Requirements for experts and specialist companies...

B.5.2 General requirements

Facilities for handling substances hazardous to water and soil (like oil and chemicals) have to be leak proof and sufficiently resistant. If leaks do appear, the liquid has to be collected in leak proof retention room. All pipelines inside of the site have to be described and catalogued (material, placement, structure...). Facilities for filling and trans-shipping substances require a overfill safeguard. A floor plan with entry of pipelines, storage containers, tanks, facilities must be provided.

Ordinance on Facilities for Handling Substances hazardous to Water - Check of facilities

The operator shall arrange for experts to check:

- First check before initial operation: level B, C, D and all under ground facilities
- Every 2.5 years: under ground facilities in protected areas

- Every 5 years: facilities with level C, D.
- Above ground facilities in protected areas level B, C, D
- All under ground facilities outside protected areas

Facilities that need special „Determination of suitability“ can request shorter check intervals

Determination of risk levels	Water Risk Class (WRC)		
	1	2	3
Volumen im m ³ or mass in t			
< 0,1	<i>risk level</i> A	<i>risk level</i> A	<i>risk level</i> A
> 0,1 < 1	A	A	B
> 1 < 10	A	B	C
> 10 < 100	A	C	D
> 100 < 1000	B	D	D
> 1000	C	D	D

Figure 4 Ordinance on Facilities for Handling Substances hazardous to Water

B.5.3 Licensing

Operators have to apply for determination of suitability for their facilities to the competent authority. If the facilities have the following certifications or skills they only need to submit a Notification Form to the authority:

- Mark of the Act on Products for Construction (Bauproduktengesetz)
- Mark of the European Community (CE mark)
- Type-approved under immission protection regulations

Granted in accordance with the provisions of the Construction Code or if substances are briefly stored or kept in conjunction with transportation in accordance with the requirement of the public transport network.

Companies have to submit a „Notification Form“ to the competent authority, concerning: storage, filling, manufacturing and treatment of substances constituting a hazard to water, like acids, alkalis, halogens, acid halides, mineral and tar oils, hydrocarbons etc.

Content of the form:

1. Production site of the facilities
2. Operator of facility/ies
3. Reason for the Notification Form – new facility, essential modification, extension ?
4. Description and type of the facility – year of construction etc.
5. Technical information / safety measures – name of substances, WRC, level, situation of the facility: under ground, above ground, type of tank, material, retention room, indicator of leakage
6. Registrations
7. Protected areas, underground, distance to surface waters (rivers, lakes)

Special requirements and conditions in the frame of the licensing procedures must be met to comply with the regulations. Facilities handling substances hazardous to water and soil have specific requirements for storage containers and information that must be available. For storage containers, this includes, volume, material, construction year, stored substances and CAS number of the device. Other characteristics are over- or underground installation, double walled structure and existence of retention rooms. The distance of the storage container to surface water in a protected area or an inundation area influences the control interval and safety level required for the facility. Similar requirements exist for pipelines and facilities for filling and trans-shipping.

B.6 Examples of national good practices on hazard management – Checklist for evaluation of safety reports

Presented by Lukasz Wyrowski, Officer in Charge, Convention on the Transboundary Effects of Industrial Accident

B.6.1 Safety reports

The goal of safety reports is to demonstrate that a MAPP and SMS are in place and that all major-accident hazards are identified and measures to prevent them and to limit their consequences are taken. The safety report ensures that adequate safety is considered for the design, construction, operation and maintenance of installations and that internal emergency plans have been drawn up, and information is provided to enable the external emergency plan to be drawn up. Further it provides information for land-use planning decisions. The requirement for a Safety report is also included in the Seveso II Directive and a requirement is a tool to implement the relevant provisions of the Convention

The safety report must include the following as minimum:

- Information on the MAPP and on the SMS;
- Presentation of the environment of the establishment;
- Description of the installation(s);
- Hazard identification, risk assessment and prevention methods; and
- Measures of protection and intervention to limit the consequences of an accident

In order to avoid duplication of work and to ease the operators the safety report may be combined with other reports produced in response to other legislation to form a single safety report. The operator of major industrial facility (qualified as upper tier establishment) has to submit the safety report to the competent authority. The operator has also the responsibility to decide on the competence of the people and organizations involved in the preparation of the safety report. Relevant organizations entrusted with such tasks must be named in the safety report.

Safety reports must be submitted for new establishment a reasonable period of time prior to the start of construction or operation and without delay after a periodic or necessary review. In case of existing installations, the safety report must be reviewed and, if necessary, updated:

- on a regular basis (to be established by the respective regulations) or;
- at the initiative of the Operator or at the request of the Competent Authority, when justified by new facts, new technical knowledge about safety or about hazard assessment or;
- in case of modification of a site, (meaning modification of the establishment, the installation, the storage facility, the (chemical) process, the nature of dangerous substance(s) or the quantity of dangerous substance(s).

B.6.2 Checklists for the evaluation of safety reports

Under the Convention's Assistance Programme and with the financial support received from the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and Federal Environment Agency through the Advisory Assistance Programme for Environmental Protection in the Countries of Central and Eastern Europe, the Caucasus and Central Asia several safety reports related activities have taken place.

This includes a training session on the evaluation of safety report within a project for Croatia, Serbia and FYR of Macedonia in which a first version of the checklist was elaborated.

A follow-up to the previous project was organized in Zagreb and training on the use of safety reports for the organisation of on-site inspections second version of the checklist (shorter and more user-friendly) was produced.

To support the evaluation but also preparations of Safety Reports and inspection to review safety methodologies of an establishment, a hierarchical system of checklists was developed:

1. Sectoral Checklists (SCL)

SCL description of the environment and site

SCL main activities and products for single installation

SCL dangerous substances

SCL identification of hazards, risk assessment and preventive measures

SCL limitation of consequences and mitigation

SCL Major Accident Prevention Policy (MAPP) and Safety Management System (SMS)

2. Detailed Checklists (DCL)

DCL substances

DCL internal Emergency Planning DCL interface internal & external Emergency Planning

DCL checklists for refineries

DCL reaction process design considerations

DCL components

Use of the checklist:

The checklist can be used by several experts at the time, if the document is split according to the different areas, *e.g.* description of substances, SMS, risk assessment, etc. This is possible because:

- a. SCL's are short and comprehensive,
- b. SCL's address a limited area,
- c. SCL's can be performed by sectoral specialists (share workloads), and
- d. SCL's can be evaluated separately according to similar topics (not to compare apples and pears).

All questions are organized in three categories, so-called 3-Cs:

Complete, Correct and Credible.

The rationale behind splitting the questions into the 3-Cs is:

Under "complete" the minimum required content of safety report is verified (essential information that a safety report should contain), and under "correct" and "credible" the content is cross-checked whether the content information can be accepted.

Every question under 3-Cs should be answered as "yes", "limited" or "no". For the evaluation purposes following principles should be applied: For every "no" checked, the Safety Report would not be acceptable, and should be immediately returned to the operator for additional work. For every "limited" checked, the Safety Report would still be acceptable, but would need further clarification.

Note that some of the "complete" and "correct" questions might need to be verified during on-site inspections. Furthermore, it might occur that some questions are not applicable for certain type of installation. For example – a passive storage facility without any pipes will not have any piping and instrumentation drawings. Therefore the assessor needs to use the relevant questions.

C GAP ANALYSIS AND PRIORITIZED ACTION IN HAZARD MANAGEMENT WITHIN AND ACROSS THE COUNTRIES

Self-assessment results for National hazard management regimes according to TEIA indicators and criteria

C.1 Hazard identification

C.1.1 Republic of Moldova

Gaps in the mechanism of data analysis

The Republic of Moldova participated in various trainings by the Assistance Program regarding the identification of hazardous industrial activities. The procedure for identification of hazardous activities was carried out in accordance with the Convention guideline on the HA identification for the Republic of Moldova.

The self-assessment concluded that hazard identification provisions meet the requirements of Stage 4. The intensive and detailed discussion of the mechanism for collecting data is described in the guidelines developed by the National Working Group (WG). At the moment, the guidelines are on the approval of all members of the national WG, and discussed in the ministry. The guide contains a description of all arrangements for the collection, analysis and verification, as well as a mechanism for the review process and includes all the minimum requirements listed on 5th stage of progress the implementation of the Convention.

Gaps identified in the implementation of the Convention

The data collection mechanism is not adopted on the basis of governmental acts or other form and still does not operate in national practice, because of that we are not in the stage 5 of the implementation of the Convention.

It is a key goal of the National Action Plan for 2011-2012 to ascend from Progress stage 4 to Progress stage 5 in this area.

1. To approve the guidance on the identification of hazardous industrial activities,
2. The implementation of the guide requirements analysis, data validation.
 - a. Develop a data format for use by operators of public benefit to provide data to the competent authorities.
 - b. Establish frequency of data collection, analysis;
3. Identify gaps, if necessary, and to develop a set of measures to address them
4. Process the data to identify all of the HA falling within the scope of the Convention and to prepare a list of them.

C.1.2 Romania

Mechanism for the collection of data

Set of procedures, implementation rules and actions to be undertaken by the authorities and operators allowing the relevant authorities to collect adequate data for the identification of hazardous activities (HA) from the operators. The mechanism should properly define the type of data to be collected (as a

minimum, the name and classification of the substances used and their quantities), the data format to be used for data collection, the responsible bodies, the procedures and the timing for data collection.

Indicators used for the self-assessment:

- Mechanism for the collection of data;
- Mechanism for the analysis and validation of data;
- Mechanism for the review/revision of data.

Progress stage with explanation

The mechanism for data collection was adopted through GD 804/2007 and MO 1084/2003 and is operational in practice. HA operators are required to send the competent authority a notification containing the following details:

- (a) the name or trade name of the operator and the full address of the establishment concerned;
- (b) the registered place of business of the operator, with the full address;
- (c) the name or position of the person in charge of the establishment, if different from (a);
- (d) information sufficient to identify the dangerous substances or category of substances involved;
- (e) the quantity and physical form of the dangerous substance or substances involved;
- (f) the activity or proposed activity of the installation or storage facility,
- (g) the immediate environment of the establishment (elements liable to cause a major accident or to aggravate the consequences thereof).

The notification is the base document for classification of the establishments as upper tier or lower tier. For upper tier establishments are applied the provisions of Decision 2004/2 amending the Guidelines to facilitate the identification of hazardous activities for the purposes of the Convention. The procedure of collecting the needed information impose obligations for operators and competent authorities.

The main responsible bodies are from the local level (county level):

- County Environmental Protection Agencies (LEPAs);
- County Environmental Guard Commissariats (CEGs);
- County Inspectorates for Emergency Situations (CIES);

The inventory of hazardous activities is managed by local level authorities and it is reported to national level. Updates of inventory performs on regular basis (yearly) and whenever the situation changes.

Identification of shortcomings and challenges with a list of priority actions to be undertaken

Until now there were no shortcomings identified. The changes of legal framework in dangerous substances classification will be a big challenge and there will be necessary to train the staff.

Mechanism for the analysis and validation of data

Set of procedures, implementation rules and actions to ensure that

- a. the system for the classification of substances used in the country has been applied correctly by HA operators. When the operators draw up the notification use the legal framework for the classification and labeling of dangerous substances. The notification containing the inventory of all dangerous substances existing on site is reported to the competent authorities who check also the correctness of classification applied;
- b. The data collected is complete and adequate for the purposes of identifying HA and that the notification is checked by the competent authorities and additional information is requested if necessary;
- c. The data collected corresponds to the real situation in the country with regard to existing HA and that there are also performed inspections in order of checking that the notification is complete and adequate.

As well as to transform received data if necessary for the purpose of identifying HA.

The inventory of HA activities is managed by competent authorities in a specific format with all details including the unit of measurement for each requested data from the operator. If data sent by the operator is not complete or there is needed more information or the data sent by the operator don't match with the format then additional information is requested. The notifications are checked by

competent authorities and based on analyzing the notification and calculations it is decided if the establishment comes under the Seveso Directive provisions as an lower tier or upper tier establishment; In order to identify HA by applying relevant criteria from the Guidelines to Facilitate the Identification of Hazardous Activities for the Purposes of the Convention, adopted at the first meeting of the Conference of the Parties (Budapest, 22–24 November 2000) (ECE/CP.TEIA/2 Annex IV, as amended by CP.TEIA/2004/4) for the upper tier establishment under Seveso II Directive are applied the criteria from the Guidelines. In order to ensure that the list of HA has been given an official status and is recognized and treated as the official list of HA in the country with regard to national legislation and with regard to the Convention. This will also include ensuring availability of a validated list of HA at the national level and to neighboring countries. The list of HA activities after being reported to the authorities at national level (the list is checked at this level too) becomes official list with regard to national legislation and with regard to the Convention. The list is available at national level and to neighboring countries through authorities official website

Identification of shortcomings and challenges with a list of priority actions to be undertaken

Until now there were no shortcomings identified

Mechanism for the review/revision of data.

Set of procedures, implementation rules and actions to be used to review the official list of HA and to revise it if necessary. Review and revision shall be undertaken at regular intervals. The mechanism for the review/revision of data adopted through governmental act and is operational in practice.

The adopted mechanism must define the following as a minimum:

- (a) The linkage with the mechanism for data collection;
- (b) The parameters to be used for the review of data;
- (c) Those responsible for the review/revision of data (e.g., the authorities, the departments, etc.);
- (d) The linkage with the validation procedure. The need for training to implement the mechanism has been estimated/discussed. A training programme has been designed in case of a confirmed need.

The collected data (analyzed and validated) is reviewed in order to check if it is appropriate; According to GD 804/2007, in the event of any significant increase in the quantity or significant change in the nature or physical form of the dangerous substance present, as indicated in the notification provided by the operator, or any change in the processes employing it, or permanent closure of the installation, the operator shall immediately inform the competent authority of the change in the situation. In this case the data is revised.

Identification of shortcomings and challenges with a list of priority actions to be undertaken

Until now there were no shortcomings identified

Conclusions:

- Weak points: After de transposition of the UNECE Convention and Seveso II Directive in 2003, there was a lack of experience in the identifications of the hazardous activities. Mechanism for the analysis and validation of data wasn't clear set up. Further, there was a lack of institutional capacity and lack of training. In some cases in which operators didn't pay enough attention in giving adequate data for the identification of hazardous activities.
- Strong points: In a relatively short time almost all problems regarding lack of experience and training and institutional capacity were covered.
- Threats: Economical recession
- Challenges: The very young personnel in this domain.

C.1.3 Ukraine

C.1.4 Belarus

Area of identification of hazardous activities

The problem

Excessive unification of criteria to identify the hazardous industrial activities

Solution

Review, on a level with general criteria, specific (individual) features of activities, with a glance of characteristics of their activities, territory location and etc.

C.2 Prevention of industrial accidents

C.2.1 Republic of Moldova

Relevant mechanisms according to the TEIA self-assessment criteria:

- The mechanism of assignment of responsibility for industrial security on the operators of hazardous activities.
- The mechanism of control introduction by the authorized bodies.

LawNo. 803-XIV of 11.02.2000

The present Law sets the legal, economic and social background for the provision of the safe exploitation of the dangerous industrial objects and is oriented towards the prevention of accidents at dangerous industrial sites, the provision of the preparedness of operators, that carry out their activity on that objects, as regards the localization and liquidation of the industrial accidents and technogenic catastrophes consequences, as well as protection of population and environment

- Authorization for dangerous industrial objects
- Certification of the dangerous industrial objects and technical facilities
- The industrial security conditions and requirements for the activity on the dangerous industrial objects
- The industrial security requirements regarding the preparedness for localization and liquidation of the accident consequences at dangerous industrial sites
- The industrial control on the compliance with the industrial security norms
- The technical research of the accidents causes
- The industrial security expertise
- The industrial security declaration
- The mandatory insurance of the responsibility for infliction of harm during the activity of the dangerous industrial sites
- The body, authorized in the field of industrial security
- The state technical supervision in the field of industrial security
- The responsibility for infringement the law on industrial security

Law No.451-XV of 13.07.2001

The present Law sets the legal, organizational and economical background for the regulation of the enterprise activity by licensing, establishes the types of activities subject to regulation by licensing and is oriented towards provision the compliance of conditions, established by law for the activities subject to licensing.

The order of issuance, extension, re-registration, suspension, resumption and cancellation of licenses, issuance of copies and duplicates, conducting the licensing activities and licensing registers, control of the compliance with the license conditions and use of the proper measures and penalties as regards the activities from the bank and non-bank financial market are set by laws, that regulate this kinds of activities.

LawNo.1236- XIII of 3.07.1997

The present Law sets the legal framework for the activities related to production, storage, transportation and use of toxic products and substances, their import and export, with the aim to reduce and prevent the negative impact of this products and substances on population and environment

Law No.271-XIII of 9.XI.94

The present Law sets the main principles of organization of the civil protection in the country, its tasks, legal background of the activities in this field of the public authorities, enterprises, institutions and organizations, regardless the type of ownership and organizational-legislative form (thereinafter enterprises), as well as of the population

(1) One of the main tasks of the Civil protection in the field of accident prevention is:

a) *Organization if the early and multilateral preparedness of population, national economy objects, Civil protection forces if exposed to risk or in case of an emergency.*

(2) According to its tasks, the Civil protection:

a) *Develops and keeps continuously ready the warning systems and networks, organizes the supervision and control of the radiological, chemical, bacterial and fire state on the territory of the country;*

b) *Prepare in advance, and in case of a certain risk – carry out the evacuation of population and property from the risk areas;*

c) *Notifies the administrative bodies and the population about the risk and the occurrence of the emergency situations, prepares to full readiness the Civil protection forces and resources and coordinate their actions during the rescue and other emergency operations;*

d) *Engages the enterprises to carry out activities for prevention and liquidation of the emergencies consequences;*

e) *Carries out the control of the prophylactic measures oriented towards prevention (or risk reduction) of emergencies occurrence and mitigation of their consequences, towards increase of security and sustainability of all the branches and objects of the national economy;*

f) *Organizes and carries out the training of the enterprises staff and population as regards the protection means and actions in case of an emergency.*

Law No.1515-XII of 16.06.1993

Art.2. – the present Law sets the legal background for the development of special normative acts and guidelines for separate environmental protection matters with the aim to:

a) Provision for everybody of the right to a healthy and esthetically pleasant environment;

b) Cultivation to every generation of a high responsibility sense regarding the environment for the future generations;

c) Reach the largest range of use of natural resources without exceeding the admissible limits, preventing their depletion and degradation, as well as the threat to human health and other unwanted and unpredictable consequences;

d) Protection of land and mineral resources, water and air against the chemical, physical and biological pollution, as well as against other activities, that destroy the economical equilibrium;

e) Saving the biodiversity and genetic material, integrity of natural ecosystems, national historical and cultural heritage;

f) Rehabilitation of ecosystems and its components, destroyed as result of the human activity or disasters.

State supervision

The main activities of the state supervision in the field of civil protection are:

1. Regulation – setting norms, rules, guidelines and provisions in the field of civil protection;

2. Conclusion/authorization – offering the right for a full or partial realization of the activity or a new kind of activity related to construction, setting technological equipment and other facilities;

3. acceptance – setting the conditions and, if necessary, measures in the field of civil protection, that require compliance in case of the project realization or in case of operations related to prevention of emergencies;

4. Control – the continuous and periodical control of the type of activity in order to get known and to improve the conditions, order of realization and results of the controls;

5. Specialized technical aid – organization, projection and implementation of investment tasks, as well as development of norms, rules and measures in the field of civil protection;

6. Timely notification of the authorities, institutions, stakeholders and population, as well as training for actions in case of emergency;

7. Statement– presentation of facts of violation of norms, rules, guidelines and provision in the field of civil protection.

The following persons are trained in the field of civil protection:

a) Public authorities managers (thereinafter – chairs of the commissions for emergencies);

- b) Personnel of the public authorities, including those for prevention and liquidation of emergencies consequences (thereinafter – authorized personnel);
- c) Persons, involved in the field of production and servicing, that are included in the composition of the civil protection forces (thereinafter- personnel of the civil protection forces);
- d) Persons, involved in the field of production and servicing, that are not included in the composition of the civil protection management and civil protection forces (thereinafter- working population);
- e) Persons, not involved in the field of production and servicing (thereinafter- not working population);
- f) Persons, studying in the schools regardless the area, type of property and organizational legal form (thereinafter- pupils and students).

Control of the state of civil protection is carried out by:

a) The Emergency Situations and Civil Protection Service:

- in the public authorities and other central authorities – once in five years;
- in the public authorities of second level - once in five years, usually before the training on civil protection;

b) Territorial departments of the Emergency Situations and Civil Protection Service :

- in the local public authorities of first level – once in four years;
- at the economic objects – once in three years;
- at the dangerous industrial objects – every year.

C.2.2 Romania

Relevant mechanisms according to the TEIA self-assessment criteria:

- Mechanism giving responsibility for safe operation to HA operators
- Mechanism introducing control regime of the competent authorities

Mechanism giving the responsibility for industrial safety to HA operators: set of procedures, implementation rules and actions allowing the competent authorities:

(a) To unambiguously identify HA operators as responsible for the safe operation of activities; and

(b) To unambiguously oblige HA operators to demonstrate the safe operation of activities to the competent authorities using defined methodologies, methods and models.

Based on type of activity, quantity and characteristics of chemicals there is established the degree of hazard (lower tier or upper tier establishments) with the responsibility for safe operation linking the degree of hazard with the responsibility for safe operation is clearly established for each type upper or lower tier establishment. According to GD 804/2007 and MO 1084/2003, HA operators are required to send the competent authority a notification

Notification contains the following details:

- (a) the name or trade name of the operator and the full address of the establishment concerned;
- (b) the registered place of business of the operator, with the full address;
- (c) the name or position of the person in charge of the establishment, if different from (a);
- (d) information sufficient to identify the dangerous substances or category of substances involved;
- (e) the quantity and physical form of the dangerous substance or substances involved;
- (f) the activity or proposed activity of the installation or storage facility,
- (g) the immediate environment of the establishment (elements liable to cause a major accident or to aggravate the consequences thereof).

Based on this notification the establishment is classified as upper tier or lower tier, the operators having different responsibilities depending on this classification. For upper tier establishments are applied the provisions of Decision 2004/2 amending the Guidelines to facilitate the identification of hazardous activities for the purposes of the Convention.

Parameters for defining the scope of demonstrations linked with the degree of hazard:

- Scope of demonstration is different depending on hazard level of establishment (upper or lower tier)

- Operators of lower tier establishments are required to elaborate a document setting out their major-accident prevention policy (MAPP) and to ensure that it is properly implemented.
- Operators of upper tier establishments have to elaborate a safety report and an internal emergency plan HA operators have to establish and implement a safety management system (SMS)

→ *Mechanism giving responsibility for safe operation to HA operators is adopted and introduced in the national legal framework, implemented and operational*

Mechanism introducing the control regime of the competent authorities: set of procedures, implementation rules and actions allowing the competent authorities to manage industrial accident hazards. In practice this means that the competent authority has — as a minimum — set safety goals, identified the scope/dimension of major accident hazards in the country and organized monitoring of hazardous activities from an industrial accident hazard point of view. Such monitoring could consist of the review of safety documentation, licensing, inspection control and prohibitions.

→ Mechanism adopted through GD 804/2007 and MO 1299/2005 is operational in practice.

Conclusions

The self assessment started as indicated with stage 5. The Convention requirements are implemented through implementation of Seveso II Directive. As Romania started the implementation of Seveso Directive in 2003 it is an important advantage. Always is place for more and better especially when we deal with such an important but also “alive” domain as COMAH

Identification of shortcomings and challenges with a list of priority actions to be undertaken

→ Insufficient training of the staff

C.2.3 Ukraine

C.2.4 Belarus

Area of prevention

Problem

- Raising of the responsibilities of the operators, exploiting of the hazardous industrial facilities, for industrial safety status, for the serviceableness.

Solutions

- Putting into operation of the obligatory insurance of civil liability of legal officials and entrepreneurs for damage, caused by activities, related to the exploitation of HA;
- Prohibition of industrial activities during the exploiting of the equipment being in the emergency state

C.3 Information to the public and public participation

C.3.1 Republic of Moldova

Relevant mechanisms according to the TEIA self-assessment criteria:

- Mechanism to inform the public
- Mechanism to ensure opportunities for public participation in relevant procedures whenever possible and appropriate

□ For the purpose of information and public awareness are developed and published:

- Annual National Report on Status of Environment in the Republic of Moldova;
- Monthly Magazines: “Mediul Ambiant” and “Buletin ecologic”
- permanent Radio and TV shows eco-themed
- Ecological materials in the and local newspapers
- Contests
- Quizzes
- Environmental Olympiads

In order to implement environmental projects, the Ministry of environment sustains financially the NGO-s every year.

In the Republic of Moldova, about 450 NGO-s are activating. They are constantly collaborating with the Ministry of Environment and subordinated institutions under a Memorandum of Cooperation. According to this document both the Ministry as well as NGOs are committed to transparency and broad public participation in decision making in environmental protection.

Main gaps:

- Population does not understand eventually their role in decision making on facilities location
- Need for additional information

Progress	Mechanism to inform the public	Mechanism to ensure opportunities for public participation in relevant procedures
Level 1		
Level 2		
Level 3	RM is at the correct identification of the HO level in context with CETAI, and at the identification level of relevant authorities in the mechanism to inform and to ensure opportunities for public participation in relevant procedures	
Level 4		
Level 5		
Level 6		

Figure 5 Level of progress

C.3.2 Romania

Mechanism was adopted through GD 804/2007 and is operational in practice. The adopted mechanism defines the following as a minimum:

(a) The parameters and procedures to determine the public in the areas where the public is to be affected and needs to be informed.

Based on the safety report elaborated by the operator, on risk analyze and on possible consequences of a major accident are determined the areas where the public is to be affected and needs to be informed

(b) Responsibility given to an authority or to HA operators to ensure public information.

The operator is obliged to inform permanently the public in order to ensure that information on safety measures and on requisite behavior in the event of an accident is known, without having to request it

(c) Scope and content of the public information: Scope of the public information is the limitation of consequences

Items of information to be communicated to the public according to Annex 5 of Seveso Directive

1. Name of operator and address of the establishment
2. Identification, by position held, of the person giving the information
3. Confirmation that the establishment is subject to the regulations and/or administrative provisions and that the notification or the safety report has been submitted to the competent authority
4. An explanation in simple terms of the activity or activities undertaken at the establishment
5. The common names or the generic names or the general danger classification of the substances and preparations involved at the establishment which could give rise to a major accident, with an indication of their principal dangerous characteristics
6. General information relating to the nature of the major-accident hazards, including their potential effects on the population and the environment
7. Adequate information on how the population concerned will be warned and kept informed in the event of a major accident
8. Adequate information on the actions the population concerned should take, and on the behavior they should adopt, in the event of a major accident
9. Confirmation that the operator is required to make adequate arrangements on site, in particular liaison with the emergency services, to deal with major accidents and to minimize their effects
10. A reference to the external emergency plan drawn up to cope with any off-site effects from an accident. This should include advice to cooperate with any instructions or requests from the emergency services at the time of an accident
11. Details of where further relevant information can be obtained, subject to the requirements of confidentiality laid down in national legislation.

(d) Review and revision of the public information;

The information has to be reviewed every three years and, where necessary, repeated and updated, at least if there is any modification. It is also be made permanently available to the public. The maximum period between the repetitions of the information to the public shall, in any case, be no longer than five years.

(e) Dissemination channels

Publishing information in local newspapers; posting information on the Internet; Information is disseminated during the environmental licensing procedure, during open days organized by operators. Also the safety report is made available to the public.

(f) Exceptions to provision of information to the public if relevant.

Identification of shortcomings and challenges with a list of priority actions to be undertaken

→ More effort on ensuring industrial safety awareness

3.2 Indicator Mechanism to ensure opportunities for public participation in relevant procedures

3.2.1 Progress stage with explanation

According to stage 5 progress, the adopted mechanism defines the following as a minimum:

- (a) The parameters for the definition of procedures relevant for public participation;
- (b) The authorities to be responsible for ensuring opportunities for public participation;
- (c) The time frames for public participation;
- (d) The modalities of public participation;
- (e) Responsibility of an authority to take due account of the outcome of the public participation;
- (f) Responsibility of an authority to inform the public of the final decision, with relevant explanation.
- (g) The need for training to implement the mechanism has been discussed. A training programme has been designed

The public is participating in the environmental permitting procedures and in decision making on sitting and construction of new establishment or in case of any change of existing establishments. There are established time frames for public participation through the legal framework concerning the licensing procedures. The environmental authorities takes account of the outcome of public participation and inform the public of the final decision during the permitting procedures

3.1.2 Identification of shortcomings and challenges with a list of priority actions to be undertaken

→ There is needed improvement in order to increase the interest of public

C.3.3 Ukraine

C.3.4 Belarus

Public information

Problem

- Unwillingness of operators to take part in the foundation of warning system, public information, being under the probable accident area, chemical contamination

Solutions

- Legal determination of norms, operators committing to finance (hazardous industrial activities):
foundation of warning system (public information), being under the probably accident area, chemical contamination;
- supply of public with means of self-defense

ANNEX I FINAL AGENDA

DAY 1	July 12
9.00 – 9.30	Registration
9.30 – 10.00	Opening Gheorghe Salaru, Ministry of Environment, Republic of Moldova Gerd Winkelmann-Oei, German Federal Environment Agency Lukasz Wyrowski, Officer in Charge, Convention on the Transboundary Effects of Industrial Accident
	Chair for the workshop: Mr. Gavril Gilca, Head of the Department of Monitoring of Environmental Quality, State Hydrometeorological Service, Republic of Moldova
	A: Baseline for hazard management
10.00 – 11.00	Legal bases and procedures for identification of hazardous activities - in Moldova, Mustea Mihai/V.Dumneanu - in Romania, Cristina Pintilie - in Ukraine, Kateryna Pogosova - in Belarus, Dedul Leonid
11.00 – 11.30	Coffee break
11.30 – 12.30	Legal bases and existing mechanisms for safe management of hazardous activities (preventive measures) - in Moldova, Vitalii Mutaf - in Romania, Magda Duta - in Ukraine, Iryna Shtets - in Belarus, Dedul Leonid
12.30 – 13.30	Lunch
13.30 – 14.30	Provisions on information to the public and public participation with regard to industrial safety - in Moldova, Tatiana Plesco - in Romania, Marilena GHIU - in Ukraine, Yevgeniy Patlatiuk - in Belarus, Dedul Leonid
	B: International standards and good practice in hazard management
14.30 – 15.00	Requirements on identification and safe operations of hazardous activities in accordance with the Water Framework Directive and Danube Convention Yurii Nabyvanets, Co-chairperson of the Accident Prevention Expert Group, International Commission for the Protection of the Danube River,
15.00 – 15.15	Requirements on identification and safe operations of hazardous activities-

	<p>in accordance with Seveso II directive</p> <p>John Vijgen, Civil Protection Expert, PPRD East Programme of the European Union</p>
15:15-15:30	<p>Requirements on identification, safe operations of hazardous activities and public participation in decision making process in accordance with the Industrial Accidents Convention</p> <p>Lukasz Wyrowski</p>
15.30 – 16.00	Coffee break
16:00-16:45	<p>Examples of national good practices on hazard management – German checklist system</p> <p>Gerd Hofmann, Regierungspräsidium Darmstadt, Department for Occupational Safety and Environment Frankfurt, Germany</p>
16.45 – 17.30	<p>Examples of national good practices on hazard management – Licensing and inspection system in Germany concerning facilities for handling substances hazardous to water</p> <p>Walter Reinhard, Regierungspräsidium Darmstadt, Department for wastewater and industrial water protection, Germany</p>
17.30 – 18.15	<p>Examples of national good practices on hazard management – Checklist for evaluation of safety reports</p> <p>Lukasz Wyrowski</p>
18.15	Wrap up and closure for Day 1
DAY 2	July 13
	<p>C: Gap analysis and prioritized action in hazard management within and across the countries</p> <p><i>Self-assessment results for National hazard management regimes according to TEIA indicators and criteria:</i></p>
9.00 – 10.00	<p>Identification and notification of hazardous activities</p> <ul style="list-style-type: none"> - in Moldova, Svetlana Stirbu - in Romania, Cristina Pintilie - in Ukraine, Kateryna Pogosova, - in Belarus, Dedul Leonid
10.00 – 10.45	Breakout session on Hazard identification
	<p>Group 1: Moldova</p> <p>Rapporteur:</p>
	<p>Group 2: Romania (and Belarus)</p> <p>Rapporteur: Magda Duta</p>
	<p>Group 3: Ukraine</p> <p>Rapporteur: Iryna Shteta</p>
10.45 – 11.15	Coffee break
11.15 – 12.15	<p>Prevention of industrial accidents</p> <ul style="list-style-type: none"> - in Moldova, Sergiu Junea - in Romania, Magda Duta - in Ukraine, Iryna Zadvorna

	- in Belarus, Dedul Leonid
12.15 – 13.00	Breakout session on Prevention
	Group 1: Moldova Rapporteur:
	Group 2: Romania (and Belarus) Rapporteur: Magda Duta
	Group 3: Ukraine Rapporteur: Iryna Shtets
13.00 – 14.00	Lunch
14.00 – 15.00	Information to the public and public participation - in Moldova, Natalia Racovet - in Romania, Marilena Ghiu - in Ukraine, Yevgeniy Patlatiuk - in Belarus, Dedul Leonid
15.00 – 15.45	Breakout session on Information to the public and public participation
	Group 1: Moldova Rapporteur:
	Group 2: Romania (and Belarus) Rapporteur: Marilena Ghiu
	Group 3: Ukraine Rapporteur: Iryna Shtest
15.45 – 16.15	Coffee break
	Presentation of results for
16.15 – 16.35	Group 1: Moldova
16.35 – 16.55	Group 2: Romania (and Belarus)
16.55– 17.15	Group 3: Ukraine
17.15 – 17.30	Discussion
17.30 – 18.00	Conclusions and closure of workshop Lukasz Wyrowski, Officer in Charge, Convention on the Transboundary Effects of Industrial Accident Gerd Winkelmann-Oei, German Federal Environment Agency Gavril Gilca, Head of the Department of Monitoring of Environmental Quality, State Hydrometeorological Service, Republic of Moldova

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